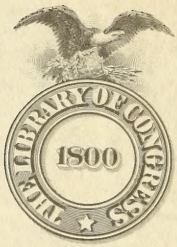
THE LIBRARY OF CONGRESS
1800

QL
461
E858
1891-95
Suppl.
Ent.
7
3096
Smith
60

SUPPLEMENT

TO

THE ENTOMOLOGIST.

NEW SPECIES OF LEPIDOPTERA FROM CHINA.

By J. H. Leech, B.A., F.L.S., &c.

The following species of Lepidoptera are new to science. They were taken by my collectors, Messrs. Pratt and Kricheldorff, in Western China during the year 1889, together with those previously described by me in the 'Entomologist,' vol. xxiii., pp. 187—192.

RHOPALOCERA.

Zophoessa argentata, sp. n.

Allied to *Zophoessa* (*Debis*) *albolineata*, Poujade,* but smaller; the male has two whitish bands on the primaries (in this respect resembling the female of *Z. albolineata*), approximating towards the inner angle; the outermost is followed by a series of five black dots. Secondaries have five black marginal spots, as in *albolineata*, but they are set in pale rings, and the white pupils of the fourth and fifth are more distinct; a pale line, parallel with outer margin, expands into a band towards anal angle, where it becomes bright fulvous. On the under surface of primaries the markings of this species are somewhat similar to those of *Zophoessa* (*Debis*) *andersoni*, Atkinson, but on the secondaries the costal, median, and submedian nerves are mapped out in silver; the central silver fascia is broad, but does not extend beyond the third median nervule; a slender transverse silver streak runs from the base of the first median nervule, and almost parallel with that vein, nearly to the anal angle; silver submarginal band, interrupted by the nervules and bordered internally with dark brown, is followed by a transverse series of silver points set in blackish rings. Expanse, ♂ 54 mm., ♀ 58 mm.

Occurs at Wa-Shan, June; Chia-Ting-Fu, July; and Huang-Mu-Chang, August.

Zophoessa helle, sp. n.

Closely allied to *Zophoessa* (*Debis*) *armandina*, Oberth.,† but the boundary of the basal two-thirds of primaries is determined by a fairly broad black transverse band, which runs obliquely outwards from the costa to below the end of cell, from whence it is only slightly indented to inner margin; this

* 'Bulletin des Annales de France,' 1885, p. cxliii.; Oberth. 'Etud. d'Entom.' xiii. pl. x. fig. 111 (1890).

† Etud. d'Entom.' vi. p. 16, pl. vii. fig. 6 (1881).

transverse band is bordered externally with deep fulvous ; the bar in discal cell is straight and very clearly defined : the black marginal spots on the secondaries are rather smaller, and there is no reddish line on the outer margin : the fringes are white, more decidedly chequered with brownish than in *Z. armandina*, and the apex of primaries is brown instead of white. On the under surface there are two small ocelli below white apical spots ; the discal bar is broad, straight, whitish, and very conspicuous ; two pairs of silvery-violet lines traverse the secondaries, but the inner one of the second pair is not continued beyond the median nervure, above which the space between this pair is clouded with silvery violet ; the second, third, and fourth ocelli are sometimes clouded with silvery violet, and the pupils of all are bluish. In the female the fulvous border to central band of primaries is rather broader than in the male. Expanse, 60 mm.

Occurs at Wa-Shan, June ; Ta-Tsien-Lu, July ; Huang-Mu-Chang, August.

ZOPHOESSA PROCNE, sp. n.

♂. Allied to *Zophoessa helle*, but the boundary of basal two-thirds of primaries is rather more irregular, though less indented, than in *Z. armandina*, and the fulvous border is broken up into spots ; the apical spots are fulvous, and there are two other fulvous spots below ; the submarginal blackish band is also broken up into spots ; the dusky bar in discal cell is incurved, and is preceded by a dusky patch. Below the apical white spots on under surface of primaries are two other white spots, the upper of these is encircled with black ; the pale primrose discal bar is broad, incurved, and surrounded with brownish. On the under surface of secondaries there are two parallel lustrous wavy lines towards the base ; from the middle of the costa a broad pale primrose patch extends to subcostal nervule, from whence two almost parallel undulating lustrous lines run to the inner margin ; the space between these lines is dusted with brownish grey.

♀. Similar to the male, but the fulvous markings are replaced by white, and are rather larger. Expanse, 60 mm.

Occurs at Wa-shan, June ; Huang-Mu-Chang, July ; Ta-Tsien-Lu, July and August.

ZOPHOESSA LIBITINA, sp. n.

Allied to *Z. sura*, Doubl., but the male is smaller, and both sexes are darker ; the outer margin of the primaries is straighter, and there is but one pale spot on the costa ; the external margin of secondaries is less angulated in contour, and the ocelli are represented by black dots. On the under surface the coloration and markings are very similar to these characters in *Z. sura*, but the primaries have a reddish apical dash, the ocelli are indistinct and only two in number ; all the ocelli on the secondaries, excepting the sixth, have a faded appearance. Expanse, ♂ 70 mm., ♀ 80 mm.

One male, Chia-Ting-Fu, in July ; and one female, Chang-Yang.

LETHE PROCRIS, sp. n.

Agrees in shape and markings with *Lethe dinarbas*, Hewitson, but differs from that species in the following characters : Colour of both sexes a much blacker brown ; the first and fifth ocelli of secondaries are larger ; the female is without the white fascia and apical dash on primaries, and the black longitudinal blotch below outer angle of secondaries is replaced by a round black spot. Expanse, ♂ 61 mm., ♀ 62 mm.

Three male, and two female specimens captured at Wa-Shan, June ; and Chang-Yang.

Lethe baucis, sp. n.

Allied to *Lethe brisanda*, de Nicéville, but the ground colour is not so reddish brown; wings broader and rounder; outer margin of secondaries not so produced; ocelli smaller; both sexes have a pale apical mark, and the female a white fascia resembling that of *Lethe rohria*, Fabr. Under surface: there is no pale bar in the cell of primaries; the line commences nearer the centre of costa; the ocelli of secondaries are all larger, and the central line is not indented below the middle. Expanse, ♂ 64 mm., ♀ 66 mm.

A long series of both sexes taken at Wa-Shan, June and July; Chia-Kou-Ho, July and August; and Ta-Tsien-Lu, July.

Lethe helena, sp. n.

♂. Fuscous brown, outer half of primaries pale; secondaries with a submarginal series of five black spots ringed with paler, and the last pupillated.

♀. Like the male, but the primaries are traversed by a broad, straight, white fascia from centre of costa to inner angle, and the spots on secondaries are all pupillated with white. Under surface of both sexes as in *Lethe lanaris*, Butl., but the pale outer area of primaries in male is larger; the white fascia is present in the female, and the transverse lines of secondaries are nearer together. Expanse, ♂ 70 mm., ♀ 76 mm.

Five males and one female taken at Chia-Ting-Fu in July.

Lethe hecate, sp. n.

Closely allied to *L. cyrene*, Leech, but smaller and darker brown in colour; the outer margin of primaries is rounder; the ocelli on secondaries are smaller, without distinct fulvous rings, and the fourth and fifth have white centres. The colour of the under surface is greyish; the outer discal bar of primaries is not continued beyond the median nervure, and the band beyond the cell is narrower, more oblique, and sinuous, and terminates at the first median nervule. On the secondaries the first ocellus is not so far removed from the others as in *L. cyrene*, and the whitish borders to the narrower and darker transverse lines and other whitish markings are much less broad. Expanse, 60 mm.

Occurs at Wa-Shan, June and July; Chia-Ko-Hou, July; Huang-Mu-Chang, August.

Lethe camilla, sp. n.

♂. Dark brown, darker on central area, and clothed with hairs along the nervules and submedian nervure of primaries; there is a pale spot near the apex, and this is the only distinct marking. Secondaries have a large blackish patch towards anal angle (evidently a sexual character), sparingly clothed with long brownish hairs; there are three black spots on outer margin, two of these are situated towards outer angle (the upper one is not always distinct), and the other before the blackish sexual patch referred to. Under surface grey-brown, suffused with reddish on the outer third of all the wings; the transverse markings are reddish brown, and similar in character to those of *L. latiaris*, Hew., but the second line of secondaries is not indented, the first and fifth ocelli are much larger and more distinctly formed; on the primaries the outer central line is followed by a broad yellowish band, and the ocelli are well defined.

♀. Primaries reddish brown, with a fairly broad, interrupted, fulvous central band, and a paler spot towards apex. On the outer margin of secondaries there are five black spots, the first and fifth with white central

points, and the third punctiform. The under surface is similar to that of the male, but the outer half of the primaries is suffused with reddish. Expanse, ♂ 64 mm., ♀ 66 mm.

Occurs in July at Wa-Shan; Chia-Kou-Ho; and Chia-Ting-Fu.

YPTHIMA CIRIS, sp. n.

♂. Fuliginous brown. Primaries have a large oval bipupillated ocellus placed obliquely towards anal angle; the pupils are small and of a brilliant metallic blue colour. The secondaries have two ocelli, one in each median interspace; each of these have one pupil of the same colour as, but rather larger than, those of primaries; there is also a minute compound ocellus at anal angle. Under surface of primaries brown, dusted and streaked with ochreous; ocellus towards apex as above, and a minute one in first median interspace; preceding these ocelli is an oblique brownish streak, which unites in a brownish blotch at the anal angle with the submarginal line. Secondaries brown, finely irrorated with whitish; a large bipupillated ocellus at outer angle, and three simple ocelli below it towards anal angle.

♀. Paler than the male, but otherwise similar. Expanse, 50 mm.

Occurs at Wa-Shan; Chia-Ting-Fu; and Ta-Tsien-Lu in July, and at Huang-Mu-Chang in July and August.

This species is allied to *Y. motschulskyi*, Brem., but is distinguished therefrom by the different character of the ocelli, which, as regards shape and position on the upper surface of all the wings, are very similar to those of *Y. methora*, Hewitson.

EUTHALIA PRATTI, sp. n.

Agrees with *E. nara*, Moore, in coloration, but the character of marking more nearly resemble that of *E. patala*, Koll. The spots rich cream in the male, white in female, forming the central fascia on primaries, are smaller, and the last of the series is not elongated in the direction of anal angle, as it is in *patala*. On the under surface the fascia of secondaries terminates in the first median interspace, and is seen through from above in the form of spots. Expanse, ♂ 94 mm., ♀ 105 mm.

Four specimens (two males, two females). Chia-Kou-Ho, July; Ichang; Chang-Yang.

EUTHALIA STAUDINGERI, sp. n.

Closely allied to *E. duda*, Staud.,* but the hind margin of primaries is hardly excavated; the ground colour of all the wings is much greener, and the transverse markings are ochreous instead of pure white; the band on secondaries is narrower, terminates nearer the anal angle, and is not externally bordered with blue. The under surface of all the wings is greenish rather than blue, and the clubs of the antennæ are reddish brown beneath, and not tipped with black as in *duda*. Expanse, ♂ 76—96 mm., ♀ 90—106 mm.

Occurs at Chia-Kou-Ho; Wa-Shan, July; Huang-Mu-Chang, July and August; and also at Chang-Yang.

EUTHALIA HEBE, sp. n.

Olive-green, suffused with yellowish. The yellowish central fascia is composed of seven more or less quadrate spots, the upper five of which are

* 'Exotische Tagfalter,' p. 152, pl. 53 (1888).

placed in a series running from middle of costa towards inner angle, and the last two are situated further in, and are directly under the third spot of the whole series; towards apex are three other yellowish spots, the first on the costa, and the last just above third spot of central series; the discal cell is crossed by two yellow bars, and clouded with yellow beyond termination of cell. Secondaries have a broad yellow central fascia terminating at the submedian nervure. Under surface pale sage-green; the markings as above, but those of primaries are bordered with black towards inner angle. Antennæ dark brown, tipped with black. Expanse, 80 mm.

Two males, Chang-Yang (native collector).

This species is unlike any *Euthalia* with which I am acquainted. The second and third apical spots and the initial pair of central series are really the inner and outer portions of two longitudinal bars, whose centres are occupied by fuliginous clouds.

PIERIS EURYDICE, sp. n.

Closely allied to *P. melete*, Mén., with which species both sexes agree in general characters, but they are respectively larger; the clubs of the antennæ are not tipped with yellow; the disco-cellular nervule of primaries is oblique and without indentation; this nervule and the median nerve are thickly bordered with black scales; there are two black spots in the second median interspace (confluent in the female); the black apical border of primaries is narrower, and extends along outer margin as far as first median nervule, and there is a small black spot at the end of second median interspace. The female is less suffused with black than the same sex of *P. melete*. Expanse, ♂ 80—86 mm., ♀ 72—76 mm.

Occurs at Wa-Shan; Chia-Kou-Ho and Huang-Mu-Chang in July; also at Chang-Yang.

HETEROCERA.

URAPTERYX NIGROCILIARIS, sp. n.

Satiny white; the outer margin of secondaries is bidentated. Primaries are traversed by two oblique narrow black bands, and between them is a short transverse black bar; the apex and fringes are black, and the costa has some linear spots of the same colour. Secondaries have a discal spot, from which a brownish narrow band runs obliquely towards the outer margin, but terminates in the first median interspace; a brownish cloud on the middle of outer marginal area precedes two black-ringed red spots; fringes black. Under surface white; primaries with a broad black bar at end of discal cell, followed by a black transverse band, which terminates in an acute point near inner margin; the inner transverse band of the upper surface is faintly reproduced; outer marginal area transversely streaked with fuliginous, and these streaks show through on the upper surface; secondaries have a large black spot on the disc, and a similar one directly above on the costa; the marginal area is marked with fuliginous as on primaries, but with two fuliginous spots to represent the red ones of upper side. Head orange in front, white above. Antennæ pectinated in both sexes, but the pectinations are very short in the female. Expanse, ♂ 78—90 mm., ♀ 82—90 mm.

A number of specimens were taken at Huang-Mu-Chang in July.

URAPTERYX PARALLELARIA, sp. n.

♀. Closely allied to *U. nigrociliaris*, but smaller; the transverse bands are parallel, slightly angulated below costa, and the outer one is placed nearer to the discal bar; on the secondaries the discal spot is punctiform,

and stands apart from the transverse band, which is undulated. On the under surface of secondaries the central black spot is small, and the costal one is not directly above, but placed nearer the base. Expanse, 64 mm.

Chang-Yang. One female example captured by a native collector.

DESCRIPTIONS OF TWO NEW SPECIES AND A NEW GENUS OF JAPANESE COLEOPTERA.

By Dr. D. Sharp, F.R.S., &c.

The two insects here described belong to families of Coleoptera the Japanese species of which have been recently all worked out. These two descriptions serve the purpose of keeping the list up to date.

Rhantus yessoensis, n. sp. (*Dytiscidæ*).

Major, latus, niger, supra testaceus, elytris crebrerrime nigro-irroratis, sutura marginibusque externis pallidis, capitis vertice maculaque ad marginem oculi, prothoracis maculis discoidalibus nigris. Parum nitidus, elytris creberrime minute reticulatis: pedibus rufis, femoribus posterioribus picescentibus. Long. 14 mm.

This fine species of *Rhantus* is, like *R. erraticus*, peculiar on account of the minute reticulation of the surface being less obsolete than is usual in the genus. It differs from *R. erraticus* by the colour of the legs, and by the spot on the disc of the thorax not being expanded transversely, as well as by the male characters: the front and middle feet in this sex are broadly dilated, and the anterior claw is much longer than the posterior; on the middle foot the anterior claw is also much dilated, and both it and the hinder claw are sinuate beneath, in such a way as to leave a short, slender extremity to the claw. The posterior femora are picescent along the middle to a greater or less extent.

Junsai, two specimens; Chiuzenji, one specimen: all of the male sex.

Syncosmetus, nov. gen. (*Colydiidæ*.)

Corpus breve, valde convexum. Antennæ breves, 10-articulatæ, clava magna triarticulata. Oculi parvi fortiter prominuli.

First joint of antennæ long and stout; second much smaller, but little broader than long; third small and slender, very small at the base, longer than broad; joints 4—7 very minute; 8, 9, and 10 forming a large, very abrupt club. Head small, epistome with a slightly raised margin on each side over the insertion of the antennæ, extending as far as the eye; in the middle without margin. Eyes quite small, but convex and rather coarsely facetted, not hispid. Antennal grooves short and deep. Palpi small, terminal joint acuminate; labium quite small, so that the slender labial palpi are very approximate. Prosternum elevated and compressed along the middle. Front coxæ moderately separated. Middle and hind coxæ about as widely separated as the anterior. Metasternum rather short. Hind-body small. First ventral segment much longer than the following, 2—4 very short, equal; terminal

segment quite as long as the two preceding together. Legs short, tibiæ smooth; tarsi with three short subequal basal joints, fourth joint stout and elongate.

The above characters bring the genus nearer to *Acosmetus* and *Syncalus* than to any other genera I know; but the insect is only remotely related to them.

SYNCOSMETUS JAPONICUS.

Nigropiceus, antennis pedibusque rufis, valde convexus, opacus; prothorace magno, dense punctato; elytris grosse punctatis, costulatis. Long. 1½ mm.

Head deflexed. Thorax large, excessively convex transversely, densely punctate, broadly canaliculate along the middle, lateral margins narrowly explanate and reflexed. Scutellum not visible. Elytra each with three slender acutely-raised costæ, and between these with very large and deep punctures placed very close to one another. Legs short and stout.

Found at Yuyama, in Higo, but extremely rare. I have only one example before me.

Dartford, October, 1890.

COLEOPTERA FROM KULU IN N.W. INDIA.

By H. W. Bates, F.R.S., F.L.S.

The following is a List of the Coleoptera belonging to the Tribes Geodephaga, Lamellicornia, and Longicornia, contained in a collection recently received by Mr. Leech from Captain Graham Young, from the Hill region of Kulu, in North-western India. The thanks of entomologists are due to Captain Young for paying so much attention to the smaller and obscurer species, which have been hitherto generally neglected by collectors in India. A considerable proportion of these will be seen to be new.

Family CICINDELIDÆ.

CICINDELA HIMALAYICA, *Kollar.*

CICINDELA AURULENTA, *Fabr.*

CICINDELA ERUDITA, *Wiedmann.*

CICINDELA (RHYTIDOPHÆNA) LIMBATA, *Wiedmann.*

C. limbata (Wiedmann), of which only the female was known to the founder of the species, and to Baron Chaudoir who redescribed it, forms a section or subgenus of *Cicindela*, allied to the genera *Jansonia* and *Dromicidia*, but distinguished from them by the ungrooved tarsi and the tridentate labrum, strongly toothed in the female and feebly toothed in the male, and the convexity continuous to the sides. The penultimate joint of the labial palpi is only moderately thickened; the sides of the body beneath are perfectly hairless and smooth. The grooves of the forehead are

very sharply incised and straight, with broad intervals, and the tumid centre of the epistome is grooved equally sharply, but finer and in a transverse direction.

Carabus boysii, *Tatum*.

Family CARABIDÆ.

Calosoma sericeum, *Fabr.*

Smaller than European examples (18 millim.). The species is spread over all Northern Asia, Turkistan, and North-western India, the local varieties in many cases having been described as distinct species. A synonymy is given by Solsky in Fedchenko's 'Turkestan,' Coleop. i.

Calosoma scabripenne, *Chaudoir*.

A species, as far as at present known, peculiar to Northern India.

Scarites sulcatus, *Olivier*. Chaudoir, Monogr. des Scaritides (1880), p. 80.

India; also found in Eastern China, Formosa, and Java.

Scarites bengalensis, *Dejean*. Chaudoir, Monogr. des Scaritides (1880), p. 89.

North India and Goorais Valley, where Mr. Leech met with it. Also found on the Yang-tsze-Kiang.

Scarites indus, *Olivier*. Chaudoir, Monogr. des Scar. p. 102.

Found throughout India, from the N.W. to Madras.

Scarites opacus, *Chaudoir*, Bull. Mosc. 1855, i. 88; *id.* Monogr. des Scar. p. 103.

North India and Bengal.

Chlænius vulneratus, *Dej.*, Sp. Gen. v. 624; Chaudoir, Monogr. des Chléniens, No. 35.

North India and Bengal.

Chlænius agilis, *Chaudoir*, Bull. Mosc. 1856, ii. 246; *id.* Monogr. des Chléniens, No. 250.

Chlænius lætiusculus, *Chaudoir*, Bull. Mosc, 1856, ii. 248: *id.* Monogr. des Chléniens, No. 368.

Recorded by Chaudoir from North India and Ceylon. Taken also by Mr. Leech in the Goorais Valley, and by Stolicska at Ladak. Some of the examples agree almost exactly with *C. agilis*, a Syrian species, and I doubt whether the species can be maintained as distinct.

CHLÆNIUS KULUENSIS, n. sp.

Near *C. tenuilimbatus* (Ballion), and *C. fugax*, Chaud. Smaller and relatively broader than *C. vestitus*, and differing from the other species of the sub-group by the total absence of yellow borders to the thorax, elytra, and abdomen. The elytra, too, in all the examples are free from pubescence and unicolorous pupurescent-black; the punctulated striæ rather deep, the moderately convex interstices granulate-punctulate and rather shining. The head and thorax are brilliant green, generally with a golden tinge; the former very faintly punctulated; the latter much more rounded than in *C. vestitus*, narrowed with sinuated margins from the middle to the base, the hind angles rectangular, the surface sparsely and irregularly but strongly punctured, often also rugose, with broadly impressed dorsal furrow and long basal foveæ. The parts of the mouth, antennæ, and legs red. The abdomen, as in all other species of the sub-group, punctulated throughout. Long. 10 millim. ♂, ♀.

AMARA BAMIDUNYÆ, *Bates*, Proc. Zool. Soc. 1878, p. 716.

Found also on the Pamir, between Sirikol and Panga, and in the Goorais Valley.

CALATHUS HIMALAYÆ, n. sp.

Elongate, narrow, shining black; elytra moderately sericeous-opaque in the female only. Thorax quadrate, very slightly rounded before the middle; hind angles rectangular; lateral margin, especially behind, broadly explanated and reflexed; surface impunctate. Elytra strongly striated and with somewhat convex interstices, the striæ scarce perceptibly punctulate; 3rd interstice with two punctures; 1st and 2nd striæ convergent, and terminating together at the base in an umbilicated foveole. Head ovate, neck distinctly constricted. Long. 11—12 millim. ♂, ♀.

Differs from the other known Himalayan Calathides, *C. kollari* (Putz.) and *Pristodactyla lacerans*, by the explanated lateral margins of the thorax: in their elongate form all three are similar. The prosternum is very sharply margined at the apex, a generic character which distinguishes the species from *Pristodactyla lacerans*, to which it has a greater superficial resemblance than to the slenderer *C. kollari*.

HARPALUS TRIDENS, *Morawitz*.

Two examples, not differing from others found on the Yangtsze and in Japan. The species is very closely allied to the European *H. calceatus*.

PLATYMETOPUS SENILIS, *Nietner*.

Widely distributed over India; Calcutta, Nilghiris, Madras, and Ceylon.

CYCLOSOMUS MARGINATUS, *Motschulsky*.

ORTHOGONIUS MNISZECHI, *Chaudoir*.

Described from examples found in the Malayan Peninsula. The specimen in the present collection from Kulu agrees closely with one from Singapore taken by Wallace, with which I have compared it.

Pheropsophus catoirei, *Dejean.*

A widely distributed Indian species.

Harpalus melaneus, *Bates*, Proc. Zool. Soc. 1878, p. 714.

This species appears to be widely distributed in the Himalaya and N.W. India. I have seen examples, with little variation, from Sind Valley, Goorais, Kulu, and Ladak.

Harpalus indicola, *Bates*, Proc. Zool. Soc. 1878, p. 714.

Harpalus praticola, Chaud. MS.

Similar in its distribution to *H. melaneus*. The examples from Kulu are all rather smaller than those described from Murree, being only 8½ millim., those originally described being 10½ millim. Specimens from "North India" returned to me named, in Chaudoir's handwriting, *H. praticola* inéd., which would have been described in a Monograph of the Harpalinæ, on which that eminent carabologist was engaged at the time of his death, do not differ from *H. indicola*, except in their rather stronger æneous tinge.

Harpalus amarellus, n. sp.

Allied to *H. tardus* (Panz.), and similar in form, though more ovate, much smaller and flatter. Pitchy-black, with æneous tinge; the four anterior tarsi, antennæ, and palpi rufous. Thorax transverse-quadrate, the narrowing in front beginning close to the anterior angles; sides from before the middle to the base nearly straight, with hind angles rectangular, though blunted at the apex; the fine lateral margins are sometimes rufous, the surface smooth and remarkably plane towards the hind angles, the basal foveæ very shallow and sometimes obsolete. The elytra are moderately shining and sericeous in both sexes; the striæ simple, acute, the interstices flat to the apex; the 3rd with a puncture distant from the 2nd stria, and placed midway between the middle and the apex. The preapical sinuation is well marked, especially in the female, but the apex is only moderately produced and acutely rounded even in the male. The tooth of the mentum is extremely short; the prosternum is plurisetose at the apex. Long. 7½—8 millim.

Family COPRIDÆ.

Copris pompilius, *Waterhouse*, Tr. E. S. 1875, p. 74.

The punctuation of the elytral interstices mentioned by Waterhouse is present in both sexes.

Catharsius granulatus, *Sharp*, Har. Col. Hefte, xiii. p. 41.

One male example, agreeing with the above-cited description.

Onitis philemon, *Fab.*

Onthophagus pactolus, *Fab.*

Onthophagus angulatus, *Redtenbacher.*

Onthophagus dama, *Fab.*

Onthophagus tarandus, *Fab.*

Onthophagus furcillifer, n. sp.

Very near *O. forcipatus* (Harold); smaller, dull black. Head and retuse front of thorax shining, dark brassy-green. Thorax very convex, closely covered with separate umbilicated punctures, each having a short bristle; base margined, angularly produced in the middle. Elytra minutely alutaceous, faintly crenate-striated, interstices with two (near the base three) rows of setiferous granules. Pygidium elongate, ocellate-punctate, and setose. Antennæ and parts of the mouth tawny-red; under surface shining, brassy greenish black, griseo-setose. Clypeus short, nearly semicircular, sparingly setiferous-punctate.

♂ major. Frontal carina sharply raised, semicircular; vertex impunctate, polished, with an elevated lamina or broad horn, bifid at the apex. Thorax in front elevated, vertical, smooth, the upper edge of the elevation quadridentate, the middle tubercles a little nearer together than they are to the lateral ones. Anterior tibiæ strongly oblique at the apex. Prosternum with distinct transverse suture, but without fovea.

♂ minor. Vertical lamina broader than long; the rest as in ♂ major,

♀. Head bicarinated; space between the carinæ sparsely punctured. Thorax in front with a slight vertical elevation, the summit quadrituberculate. Long. 6 millim.

Onthophagus expansicornis, n. sp.

Similar in form to *O. taurinus* (White) and allies. Yellowish. Head, middle of thorax, suture (sometimes broadly), body beneath (except the yellow pygidium and borders of the ventral segments), dark brassy-green; antennæ light reddish; femora yellow, tibiæ and tarsi pitchy-red; surface clothed with short bristles, but shining. Head, thorax, and pygidium rather closely, but separately and strongly, punctured. Thorax rounded on the sides, margin sinuated before the distinct but obtuse hind angles; middle of the base, angular, smooth. Elytra plane in middle, faintly punctulate, striated; interstices flat, setiferous-punctulated.

♂. Clypeus triangular, with reflexed and acute apex; occiput with two suberect horns connected by a scarcely perceptible carina, the base of each on the inside broadly dilated, above which the horn is strongly bent and slightly flexuous. Thorax convex, in front gradually sloped, smooth, moderately retuse.

♀. Head more thickly punctured, bicarinated; clypeus shorter; apex obtusely rounded. Thorax in front with a moderately prominent median protuberance. Long. $6\frac{1}{2}$—$7\frac{1}{2}$ millim.

Onthophagus ramosellus, n. sp.

Near *O. ramosus* (Wiedm.); much smaller, black, slightly shining, glabrous; antennæ and palpi reddish. Head subsemicircular; clypeus very feebly emarginated; front with two arcuated carinæ nearly approximated, the anterior sharp and angulated on each side, continuing thence to the margin,—the posterior obtuse, with a conical tubercle in the middle, and at each end armed with an acute simple horn, very obliquely inclined backwards; clypeus and genæ transversely wrinkled in both sexes. Thorax unarmed, moderately closely punctured. Elytra plane in the middle, crenulate-striated; interstices plane, sparingly punctulated with still smaller punctures intermixed. Pygidium faintly punctured.

♂. Horns of the vertex subflexuous, reaching in its larger developments beyond the middle of the thorax; vertex, from the anterior carina to the occiput, impunctate. Thorax laterally compressed, except near the base, and nearly smooth in the long lateral depression.

♀. Horns of the vertex very short, conical, acute, simple; space between the carinæ rugulose, behind the tubercle polished and sparsely punctulate. Thorax evenly convex. Long. 6—9 millim. ♂, ♀.

A large series of examples, showing no gradations towards the similar but much larger *O. ramosus*. In Assam the species occurs as a slight variety, rather more brassy in colour, with stronger thoracic punctures, and the interstices of the elytra distinctly convex.

ONTHOPHAGUS KULUENSIS, n. sp.

Allied to *O. orientalis*, and similar to it in the armature of the head in the male, but smaller, glabrous, and very finely sculptured. Obscure brassy-black, moderately shining. Thorax evenly ocellate-punctulate, immarginate at the base with triangular, subdepressed, median projection. Elytra depressed near the scutellum, very finely striated; striæ distantly and faintly punctulate; interstices plane, sericeo-opaque, very finely punctulated. Pygidium with a few distant setiferous punctures. Antennæ, palpi, and tarsi pitchy-red.

♂ major. Head impunctate, polished; clypeus broadly trapezoidal, with strongly-reflexed obtuse apex and sinuated sides; clypeal carina strongly elevated and straight from side to side; lamina of the vertex elevated, oblique; middle of upper margin strongly bowed forward, each end with an erect, but flexuous, acute horn. Thorax dilated anteriorly, the front steeply inclined but scarcely retuse, smooth. Anterior tibiæ much elongated, flexuous, with much produced inner apical angle.

♀. Head rather closely punctured, strongly bicarinated; clypeus similar in form to the male, but apex much less reflexed. Thorax with shorter declivity in front, protuberant in the middle of the summit.

♂ minor. Lamina of the vertex much less elevated, and with little trace of the anterior projection; horns short, head punctured. Thorax with only slight anterior declivity and protuberance.

♂ effeminatus. Lamina of the vertex rudimentary, unarmed, upper edge faintly trinodose. Head punctured. Long. 7—9 millim.

Very numerous examples.

ONTHOPHAGUS CONCOLOR, *Sharp*, Journ. As. Soc. Bengal, 1878, p. 170.

The following is a detailed description of this species, founded on a good series of examples:—

Black above, opaque in front, ænescent, shining, beneath polished; apex of the palpi and claws reddish; clypeus subsemicircular, apex reflexed, obtusely truncated and subsinuated, surface punctured with larger punctures intermixed; genæ separately and slightly rounded. Thorax with sides slightly sinuated near the prominent and subfalcate anterior angles, and behind rounded to the base, the latter obsoletely margined and very slightly angular in the middle; surface very sparingly punctured, each puncture with a short black bristle. Elytra plane above, faintly crenulate-striated; interstices flat, finely shagreened, and sparingly setiferous-punctulate. Pygidium shagreened and very sparsely punctured. Long. $7\frac{1}{2}$—$8\frac{1}{2}$ millim.

♂ major. Front smooth and without carina; occiput with a moderately long, nearly erect, horn, gradually widened below to the base. Thorax in front oblique, subretuse in the middle, smooth.

♂ minor. Same as ♂ major, except that the occipital horn is reduced to a moderately prominent tubercle.

♂ effeminatus. Same as ♂ major, except that the short obtuse occipital ridge is without horn, and the thorax is convex and punctate to the front margin.

♀ major? Clypeus with an arcuated carina not prolonged to the sides;

occiput with a short bituberculated lamina; clypeus coarsely rugose, forehead punctulated. Thorax with a short, polished, apical declivity, retuse in the middle.

♀ minor, Same as ♀ major, except that the occipital lamina is not elevated, but indicated only by a short carina, and the front of the thorax is convex and punctured to the margin.

I cannot detect any sexual difference in the anterior tibiæ and their armature in this species, which is so peculiar in the prominence of the posterior carina of the head in well-developed females.

ONITICELLUS IMBELLIS, n. sp.

Very near the Abyssinian *O. spinipes* (Roth.), from which it differs almost solely in the narrower, more elongate form, and the close confluent punctuation of the thorax; oblong, narrow, plane above, dull coppery or greenish-brassy brown; elytra variably lineated and spotted with dull red. The upper surface is clothed with stiff laid pubescence, and the elytra have, in addition, numerous very long and rigid tawny bristles towards the apex, those on the apical declivity being more or less approximated in fascicles. The head is unarmed in both sexes, but the surface forms a kind of shield, which terminates behind the eyes and above the occipital depression in a sinuated edge; the punctuation is irregular, and there are some conspicuous large points on the clypeus, which latter is rather broadly rounded and sinuated in the middle of front margin. The thorax is elongate-quadrate, slightly convex, and densely confluent punctate, in some parts granulated. The elytra are striated, with the interstices granulated. The legs are longer and more slender than in the typical *Oniticelli*, the straight tibiæ have a few long and distant bristles, without ridges, on their outer edge, and very long apical spur.

♂. Anterior tibiæ with apex broadly truncated, apical tooth short and scarcely oblique.

♀. Anterior tibiæ with long and oblique apical tooth. Long. 7 millim.

APHODIUS FIMETARIUS, *Lin.*

A common European species. Recorded also from Turkistan, Western Siberia, and Northern Africa.

APHODIUS KASHMIRENSIS, *Sharp*, Journ. As. Sc. Bengal, 1878, ii. p. 271.

Found also in Ladak. The species is closely allied to the European *A. piceus* (Gyll.), from which it is distinguished chiefly by the strongly crenulate-punctate sulcus of the basal margin of the thorax.

GEOTRUPES ORIENTALIS, *Hope.*

Recorded from many districts in Northern India; Nepaul, Sylhet, &c.

GEOTRUPES KULUENSIS, n. sp.

Closely allied to *G. orientalis*, but distinct from the numerous examples of that species I have examined by the dark brownish brassy colour, and the greater polish of its upper and its black under surface, slightly brassy only on the femora, and also by the nearly smooth thorax (polished or silky subopaque), sparingly punctured on the sides, and the absence of the central depression of the scutellum, which, however, retains the submarginal groove of the sides, characteristic of *G. orientalis*. It is rather smaller, but of

similar narrow-oblong form; the anterior submarginal groove of the thorax is longer and deeper, the basal marginal groove strongly impressed and entire, the punctured striæ of the elytra rather straighter and more regular. The antennæ and the pilosity of the under surface are black. The anterior tibiæ do not differ in either sex, the male having beneath a single, small compressed-conical tubercle in the middle, with the under surface, thence to the apex, plane and smooth. Long. 17 millim.

Trox italicus, *Reiche*. Harold, Monogr. der gatt. Trox, p. 110.

Recorded by von Harold, as from Calcutta and Tranquebar. The species owes its inappropriate name to the fact or report that the specimen described was found at Rimini in Italy.

Hybosurus orientalis, *Westw.*

Phœochrus indicus, *Westw.*

Family MELOLONTHIDÆ.

Hoplia polita, n. sp.

Near *H. detrita* (Solsky). Larger. ♂. Oblong, elytra each depressed in middle, and apical calli large and prominent; shining black, head and thorax clothed with long, elytra sparingly with short, grey-brown hairs; under side and pygidium clothed also with long hairs, with sparse traces only of blue-grey scales. Clypeus with rounded angles, and front edge slightly sinuated. Thorax densely punctate-rugulose; rugulæ transverse-asperate, short and wavy. Elytra minutely and closely punctulate-rugulose, each with two faint longitudinal costæ. Scutellum smooth. Pygidium oblique, moderately convex, densely rugulose. Anterior tibiæ tridentate; upper tooth very small, anterior and intermediate claws very unequal, bifid; hind claws long and simple. Antennæ black. Long. 9—10 millim.

♀?. Smaller. Elytra dull reddish. Upper surface destitute of hairs; head and thorax vaguely punctulate, without rugulæ. Under surface and pygidium thickly sprinkled with silvery-blue and grey scales. Long. 6½—8 millim.

Lachnosterna tereticollis, *Burm.* Handb. d. Ent. iv. 2, pp. 538, 314. (? = longicollis, *Blanch.* Cat. d. l. Coll. Entom. p. 150.)

Recorded by Blanchard, as from North India; and by Burmeister, from Tibet. The description of Burmeister is more complete and accurate; that of Blanchard fits the Kulu species, as far as it goes, but from its superficiality leaves one in some doubt.

Lachnosterna stoliczkæ, *Sharp.*

Several examples, agreeing well with Dr. Sharp's description.

Lachnosterna occipitalis, n. sp.

♀. A small, narrow, oblong-subcylindrical species, glabrous; the breast fulvous-pubescent; forehead and anterior margin of the thorax with a few long bristles. Clypeus rather narrow, quadrate, with deep subtriangular notch in the reflected front margin and rounded angles; the head very coarsely and partly confluently punctured; frontal suture sharp and flexuous, front with a transverse wheal, between which and the polished occiput is a transverse, more densely punctured depression. Thorax coarsely punctured, sides

setiferous-crenated, strongly but obtusely dilated in the middle. Elytra rather finely and closely subrugosely punctured, with obsolete and punctured costæ. Pygidium elongate, slightly convex, very coarsely and rather sparsely punctured and wrinkled. The tooth of the claws is near the apex, and strongly curved; the base, also, has a broad tooth. Antennæ with joints 3—5, nearly equal 6—7, short, and conically produced. Terminal ventral segment convex, polished, with the apex (and apical part) of the penultimate segment coarsely punctured and tawny-setose. Long. 12—16 millim.

Belongs to Division I. of the genus, as defined in Biol. Centr.-Amer. Col. ii. 2, p. 186, which is rich in Central-American species.

LACHNOSTERNA BATILLARIA, n. sp.

Tawny-red, glabrous above; breast and base of the legs densely clothed with long, silky pile. Clypeus moderately long, quadrate, with the angles rounded and anterior edge straight, rather deeply concave, shovel-shaped; forehead sloping, plane, both annulate-punctate, with the central parts smooth; occiput without transverse plica, more densely and finely punctured. Thorax with regularly rounded sides, and very obtuse hind angles; margin crenulate, surface rather sparsely and finely annulate-punctate, with a smooth space on the disk. Elytra more densely punctured, towards the suture rugulose, a broad sutural and two similar discoidal costæ slightly elevated, smoother than the rest of the surface, and limited by striæ; some of the punctures, especially towards the sides and apex, have a short grey hair. Pygidium strongly convex in the middle, annulate-punctulate, glabrous. Ventral surface nearly plane, sutures deeply impressed, except in the middle, where they are, as usual, obsolete; middle of each segment, from side to side, punctulated, terminal segment entire, simple. Claws long, with the tooth short and acute near the base, and the basal part dilated. Anterior tibiæ bidentate, the third (upper) tooth scarcely indicated. Antennæ 10-jointed, normal; the club slender, and equal in length to joints 2—7, taken together. Long. 18 millim.

Two examples; judging from the absence of sexual modifications in the ventral segments,—females. The legs and tarsi are, however, rather long and slender, as is usual in the male of this and the allied genera. The species has the facies of a *Rhizotrogus*.

LACHNOSTERNA BATILLINA, n. sp.

Oblong, narrow, reddish-tawny, clothed with short hairs, but shining. Clypeus short, subquadrate, a little narrowed anteriorly, concave, the fore margin slightly sinuated and more elevated in the middle, very sparingly punctured; forehead convex, and more strongly annulate-punctured. Thorax with moderately rounded crenulated sides, and obtuse hind angles. Elytra closely punctulate, the lightly indicated costæ scarcely smoother than the rest of the surface. Pygidium scarcely convex, rather closely beset with setiferous annular punctures. Abdomen punctate-pubescent throughout, convex in the middle, apical segment simple. Claws as in *L. batillaria*, long, dilated at the base within, and sharply toothed at the end of the dilatation. Antennæ as in *L. batillaria*. Anterior tibiæ tridentate. Long. 11 millim.

Very closely allied to *L. batillaria*. Two specimens, apparently females.

LACHNOSTERNA GRADATIFRONS, n. sp.

♀. Slenderly oblong, a little rounded and dilated behind, above glossy black, glabrous beneath, and legs chestnut-brown; antennæ and palpi paler;

breast and base of legs tawny-hirsute. Clypeus twice as broad as long, anterior margin strongly reflexed, rounded on each side, in the middle depressed and sinuated, closely and coarsely punctured. Lower part of the forehead, from side to side, polished and sparsely punctured; the upper part with a thick transverse carina or fold depressed in the middle, above which is a similarly transverse depression densely punctured, followed by the convex, and almost impunctate, occiput. The antennæ are 10-jointed, joints 3—5 of equal length, 6 and 7 shorter, and slightly produced on their inner side. The thorax is dilated and angulate in the middle, strongly, but rather sparsely and irregularly, punctured, the lateral margins strongly crenated, the hind angles nearly rectangular. The elytra are more finely punctured, with irregular longitudinal spaces smooth. The abdomen is subinflated, shining, sparsely and strongly punctured, the apical segment convex; the pygidium moderately large, triangular, and irregularly punctured, each puncture with a short grey seta. The claws are strongly curved and toothed, as in *L. occipitalis*, i. e., the normal tooth is near the apex, broad and curved, and the base, also, has a broad obtuse tooth. Long. 15 millim., ♀.

LACHNOSTERNA NUBILIVENTRIS, n. sp.

Elongate-oblong, parallel sided, castaneous, shining, head and thorax darker and opaque. Head broad and short, vertex transversely convex; forehead gradually sloping, confluent-punctate, the punctures mostly oval. Clypeus extremely short and broad, the margin a little reflexed in the middle of the front, strongly folded backward, the angles broadly rounded. Thorax short and broad, very densely beset with oblong punctures, which on the sides unite in longitudinal strioles; sides rounded in the middle, crenated only in front. Elytra umbilicate-punctulate, the intervals between the punctures convex and wrinkled; sutural and discoidal costæ obtuse, submarginal costa more sharply elevated. Pygidium closely annulate-punctate, glabrous, basal margin griseous-opaque. Abdomen inflated, shining, punctured, glabrous in the middle, griseous-opaque at the sides. Apical ventral segment in male, transversely concave; in female, convex. Claws strongly curved, the basal half dilated, the sharp tooth a little below the middle. Antennæ 10-jointed, joints 3—7 very short, taken together shorter than the scape; club short oval, in both sexes. Long. 19—20 millim.

APOGONIA NIGRESCENS, *Hope*. Gray's Zool. Miscell. 1831, p. 23; Waterhouse, Cistula, Entom. ii. p. 223.

Found also in Nepaul.

MELOLONTHA NEPALENSIS, *Hope*.

MELOLONTHA ARGUS, *Burmeister*.

Occurs also in Penang and Java.

MELOLONTHA ÆNEICOLLIS, n. sp.

Closely allied to *M. cuprescens* (Blanch.), of Eastern Tibet. Elongate-oblong; head brassy-black; clypeus short and broad, quadrate, with rounded angles, densely confluent-punctate, anterior margin (female) moderately reflexed and sinuated, vertex coarsely sculptured, fulvo-pilose. Thorax angulate-dilated in the middle, and with acute hind angles; the middle broadly sulcate, the lateral margins obtusely serrated, the disk closely punctured, the sides broadly confluent-punctate, shining coppery, with a golden tinge, the dorsal sulcus and the sides clothed with laid tawny hairs. Scutellum brassy, polished, impunctate. Elytra each (including the sutural rib) with five shining costæ, the fourth fainter than the others, the broad

interstices minutely punctate-rugose, and clothed with ashy adpressed hairs or elongate scales. Pygidium (female) elongate-triangular, nearly plane; apex obtuse or briefly truncated, densely clothed with incumbent tawny pile. Breast densely villose, tawny. Abdomen very finely and closely clothed with ashy-tawny pile, sides of the segments with the usual white chalky tomentose spots. Legs black. Antennæ chestnut-red, 4th joint slightly produced, club scarcely longer than joints 2—4, composed of six leaflets. Long. 30 millim., ♀.

As in *M. cuprescens*, the mesosternum does not project beyond the middle coxæ.

Family RUTELIDÆ.

ANOMALA (HETEROPLIA) BRACHYPUS, n. sp.

Oblong, convex, glabrous; legs remarkably short; the four hinder tibiæ short, broad, and compressed, with two strong transverse ridges; the hind tarsi short and thick. Rufo-testaceous; tarsi and suture blackish; head subconfluent, punctate, the punctures much sparser on the crown; clypeus small, with strongly reflexed margin. Thorax evenly and separately punctulated, with regularly rounded lateral margin, rounded hind angles, and continuous basal margin. Elytra deeply punctate-striate, the 2nd striæ duplicated and irregular towards the base; interstices convex and smooth; incrassated lateral margin with a continuous row of setiferous punctures. Pygidium convex, shining, strongly punctured; apical margin with a row of long hairs. Anterior tibiæ 3-dentate; 3rd tooth very short. Tarsal claws very unequal, the longer claw of the first pair bifid (♀?), of the middle pair simple. Mesosternum between the coxæ reduced to a narrow septum. Long. 12 millim.

Allied to *A.* (*Heteroplia*) *ypsilon* (Wiedm.), from which it differs by its much narrower form and short and broad hinder tibiæ and tarsi.

ANOMALA (HETEROPLIA) POLITA, *Blanch.*, Cat. Col. Ent. i. 182.

North India, according to Blanchard.

ANOMALA (APROSTERNA) RUFIVENTRIS, *Redtenbacher*, in Hügel's 'Kaschmir.'

ANOMALA LINEATOPENNIS, *Blanchard*, Cat. Col. Ent. i. 191.

A species only known from Northern India.

ANOMALA VARICOLOR, *Schönherr.*

This species appears to be as variable in the sculpture of the elytra as it is in colour. Burmeister gives "Vorder Indien" as its locality. I have seen examples from Burmah and Hong Kong, which differ from the Indian form in the head being brassy black instead of dark red.

ANOMALA HOLOMELÆNA, n. sp.

Elongate-ovate, convex; the thorax narrowed in front and widened at the base, the hind angles being subacute, and, viewed from above, prominent owing to a thickening of the margin; entirely glossy black, subpurpurascent, the breast densely clothed with dark brown pile, and antennal club dark castaneous. Head (except the middle of the vertex) densely and finely

rugulose-punctate. Thorax sparsely punctulate, more densely on the sides. Elytra superficially striate-punctulate, the interstices flat and smooth. Pygidium sparsely arcuate-punctate. Anterior tibiæ bidentate, the apical tooth prolonged, the upper extremely short. The anterior and middle tarsi with outer claws fissile. Long. 20 millim., ♀.

Belongs to the group typified by the European *A. frischii*, and similar to that species in form.

ANOMALA PRASINICOLLIS, n. sp.

Similar in form to *A. frischii* (F.), and belonging to the same subgroup. Testaceous-yellow, with a faint greenish tinge on the elytra, and a brassy lustre on the under side of the body; head, thorax, and scutellum apple-green, scarcely metallic, the sides of the thorax yellow; tibiæ and tarsi brassy or golden green; pygidium and propygidium dull brassy green; antennæ yellow. The head and thorax are densely, here and there confluently, punctulated; veiwed from above, the thorax appears broadly trapezoidal, but the sides are somewhat dilated a little before the middle, before which they converge strongly to the acute anterior angles, and behind they are nearly parallel to the hind angles. The elytra are punctulate-striate in pairs, the striæ scarcely impressed, and the intervals rather closely covered with large and small punctures intermixed. The breast is clothed with tawny pile. The pygidium is very closely and roughly though minutely rugulose-punctate or granulate, and clothed with erect tawny hairs. Long. 15—16 millim., ♂, ♀.

The species occurs also in Assam, and is probably found in other parts of India, but I cannot find that it has been before described. The anterior tibiæ are bidentate, and the outer claw of the four anterior tarsi is bifid.

EUCHLORA VIRIDIS, *Fabr.*

A widely distributed species in South-eastern Asia. The Kulu insect does not differ from examples from South China, Siam, Perak, and Assam.

EUCHLORA MONOCHROA, n. sp.

Of broader ovate form than *E. viridis;* above dull dark leaf-green, beneath and legs the same, but more metallic; antennal club pitchy red. The whole upper surface densely and rather strongly punctulate; the punctures on the thorax in many places confluent, on the elytra annulate or arcuated and condensed into wavy wrinkles at the apex, the disk having two or three straight rows of umbilicated punctures. The subapical callus of the elytra is very prominent and more sparingly punctured. Pygidium very densely punctulate-rugulose and subopaque. The thickened lateral margin of the elytra extends in a very gradual curve past the outer apical angle and then ceases. Long. 27—28 millim.

Two examples.

EUCHLORA DIMIDIATA, *Hope.*

Found also in Nepaul.

EUCHLORA BARBATA, *Burmeister*, Handb. d. Ent. iv. 2, p. 505.

Burmeister gives the "Himalaya" as the locality of this well-marked species.

MIMELA HORSFIELDII, *Hope* (= ANOMALA VITTATA, *Redtenb.* in Hügel's 'Kaschmir,' iv. 2, 525).

A widely spread sub-Himalayan species. Found also in Assam and in the Khasia Hills at 2000 ft. elevation. In N.W. India and Kashmir the golden-red stripes are paler and less rich in colour than in examples from Darjiling and Assam.

POPILIA CUPRICOLLIS, *Newman.*

A species variable in its metallic colouring, found throughout Northern India.

POPILIA CYANEA, *Newman.*

Also a widely spread North Indian species.

ADORETUS BOOPS, *Wiedmann.*

Found also in Bengal.

ADORETUS LASIOPYGUS, *Burm.*

Recorded with the following from North India by Burmeister.

ADORETUS BRACHYPYGUS, *Burm.*

Family DYNASTIDÆ.

HETERONYCHUS POROPYGUS, n. sp.

Closely resembling the African *H. licas* in the very coarse and confluent punctuation of the pygidium; oblong, glossy black, beneath piceous. As in *H. licas*, the frontal tubercles are wanting, there being only a faint trace of fold on each side of the frontal suture; the transverse rugæ and punctures are widely spaced, and the teeth of the clypeus short, but the sides of the clypeus are not strongly sinuated. The thorax is voluminous and smooth, with gently arcuated sides, and destitute of visible punctuation on the surface. The elytra have one sutural and eight discoidal moderately impressed punctured striæ, the broad subsutural interstice has an irregular row of very minute punctures, and the 8th and 10th interstices an irregular row of similar punctures towards the apex, and the apical area (which only the sutural stria traverses) is rather sparsely but strongly punctured. The pygidium is strongly convex (especially towards the apex) in the male, slightly and equally convex in the female; the large punctures, with which it is very unevenly covered, are umbilicated, and towards the apex confluent. Male. Major claw of anterior tarsi broad, curved, spatulate, with an indentation on its outer edge. Long. 15—17 millim., ♂, ♀.

Found also at Penang.

HETERONYCHUS ANNULATUS, n. sp.

Resembles *H. arator*, but the thorax is relatively larger. Glossy black, beneath piceous. Head punctulate-strigulose, front unarmed, clypeal teeth approximated. Thorax finely and sparsely punctured, disk smooth, sides arcuated. Elytra with a moderately-impressed punctured sutural stria, and four pairs of similar striæ, forming costæ, the interspaces between the pairs flat and irregularly punctured, the punctures towards the base of the subsutural interspace crowded; on the others, forming an irregular single line, except towards the apex, where they become more numerous on blending with the densely punctured apical area. All the punctures are distinctly annular. The pygidium is also annulate-punctate, with plane spaces between

the punctures. Male. Anterior tarsi normally elongated, the major claw bent at a right angle, broad, apex truncated, base with a stout curved tooth, inclined a little outwards; the tarsal joints narrow, concave, fringed with rigid hairs. Long. 12—14 millim., ♂, ♀.

The slender anterior tarsi in the male (not much stouter than in the female) and the broadly toothed major claw, well distinguish this species, independently of the sculpture, from *H. arator* and allied forms.

Xylotrupes gideon, *Lin.*

A well-known and widely-distributed Asiatic and Malayan Dynastid.

Family CETONIIDÆ.

Rhomborhina opalina, *Hope.*

A common sub-Himalayan species.

Coryphocera nigritarsis, *Gory & Percheron.*

This and the following are well-known North-Indian species.

Coryphocera amœna, *Hope.*

Clinteria confinis, *Hope.*

Anatona stillata, *Newm.* (= flavoguttata, *Burm.* sec. *Schaum.*)

According to Burmeister, found at Bombay. The North Indian form, as figured in Hügel's 'Kaschmir,' and with which the Kulu specimens agree, differs considerably in markings from Burmeister's description, and from Bombay examples. They are considered as belonging to one and the same species, by Schaum and other authorities.

Anatona (Eumimela) pygialis, *Kraatz*, Deutsch. Ent. Zeitr., 1881, p. 264.

Kraatz gives the Himalaya as the locality of the species. The size he mentions, 5 millim., I conclude must be a lapsus for 10 millim., which is the length of most of the Kulu specimens.

Chiloloba acuta, *Wiedmann.*

An apparently common and abundant species. Most of the examples I have seen come from Bengal.

Glycyphana viridi-obscura, *Gory & Perch.*

Recorded also from Nepaul and Tibet.

Glycyphana versicolor, *Fab.*

The examples from Kulu seem to be an extreme glossy-black variety of this very variable and widely-distributed species.

GLYCYPHANA MINIMA, n. sp.

Oblong, narrow, subdepressed; above dark green, opaque. Head (with the exception of the occiput) shining black, punctate, the punctures running into longitudinal rugæ on the forehead and sides of the clypeus, the latter quadrate, with front edge strongly sinuated; forehead longitudinally convex. Thorax and elytra sparsely annulate-, behind arcuate-, punctate, the former with a large spot at the anterior angles, and two small discoidal spots; the elytra each with four small round spots (the first in the middle near the base, the three others in a straight line near the suture, between the middle and the apex), and two marginal transverse lineoles behind the middle, white. The scapulæ entirely, and the sterna and abdomen broadly on the sides, clothed with dense white tomentum; middle of the under surface and legs shining black, sparsely punctured, each puncture with a white hair-scale. Pygidium convex near the apex, concentrically striated, base on each with two white spots. Anterior tibiæ with two sharp approximated teeth, and a third shorter tooth far removed, about the middle of their length. Long. 9 millim.

One example.

CETONIA DALMANNI, *Gory & Perch.*

Numerous examples. Recorded also from Nepaul.

CETONIA IMPAVIDA, *O. Janson*, Cist. Ent. ii. 538 (1879), = *C. dohrni*, *Harold*, Comptes Rend. Soc. Ent. Belg. 1880, p. 3; and Mitth. Munch. Ent. Ver. 1880, p. 162.

A good series of examples, offering little variation. The species was described by von Harold, as from Kulu; and no other locality has yet been specified.

ANTHRACOPHORA ATROMACULATA, *Fabr.*

A well-known Indian species.

Family PRIONIDÆ.

MACROTOMA FISHERI, *Waterh.*

One male example, agreeing fairly well with Waterhouse's description. The locality of the insect he described is Burmah.

MACROTOMA PLAGIATA, *Waterh.*

A single female example.

Family CERAMBYCIDÆ.

NEOCERAMBYX SIMILIS, *Gahan*, Ann. and Mag. Nat. Hist., January, 1890, p. 52.

Found also in Ceylon.

NEOCERAMBYX INDICOLA, n. sp.

Closely allied to *N. indutus* and *N.* (*Pachydissus*) *similis* (Gahan), and agreeing with them in the form of the thorax, and in the 6th to the 8th antennal joints being armed with a distinct spine at their inner apices. The rugosities of thorax are more confused, and the oblong discoidal plate much less defined and somewhat rugose. The chief difference, however, is in the

"intergenal groove" on the under side of the head, which Mr. Gahan first pointed out, and the shape of which serves to distinguish *N. indutus* and *N. similis*. The groove is here much widened, and forms a straight transverse, rather shallow depression. The prosternal process is also different, being arcuated to the tip, and the latter not projecting, as in the above-mentioned species. The outer apex of the elytra is obtusely angulated, not dentate. Long. 25 millim.

EPHIES SULCIPENNIS, n. sp.

Very near the Sumatran *E. dilaticornis*, but the elytra in the same sex (female) narrow, with straight sides, except near the apex, where they are very slightly dilated. Body beneath and legs brilliant steel-blue. Thorax and elytra red, the latter black at the apex for about one-sixth the length; head and antennæ strongly depressed, basal margin of the thorax and the scutellum black. Antennæ not reaching the middle of the body, joints 3 to 9 broad, dilated on their inner sides and serrated; elytra each with three well-marked longitudinal furrows, the interstices between the 1st and 2nd and 2nd and 3rd convex. Coxæ and underside of anterior femora with fine silky-grey pubescence. Long. 16 millim.

One example.

EURYCEPHALUS LUNDI, *Fab.*

Found also in Assam and Penang.

PURPURICENUS ——?

A single mutilated specimen.

APHRODISIUM HARDWICKIANUM, *White.*

Family LAMIIDÆ.

EPICEDIA MACULATRIX, *Perty.*

A single example, agreeing well with others from Java and Borneo, with which I have compared it.

EPEPEOTES LUSCUS, *Fab.*

A widely-distributed species in South-eastern Asia and its islands. It is curious that the Kulu example resembles in its markings specimens from Borneo more closely than it does others from continental Asia, *viz.*, Tenasserim and Perak, which I have had at hand for comparison.

BATOCERA ADELPHA, *Thomson.*

A species known at present only from Northern India.

APRIONA CINEREA, *Chevolat.*

OCHEUTES SPINICOLLIS, n. sp.

Of rather shorter and more cylindrical from than *Niphona picticornis;* obscure brown, with two ashy-grey lateral spots or fasciæ on each elytron, one broader before, the other narrower behind, the middle, and neither reaching the suture; bases of antennal joints grey. The thorax is convex, and very coarsely and irregularly rugose on the disk, the sides or flanks with

two prominent tubercles, the anterior one prolonged into a sharp point, the posterior conical. Elytra strongly punctured, rounded and ciliated at the apex, each with two pencillated centro-basal crests, the outer one much shorter and less elevated. Anterior femora (male, ?) with a broad tubercle on the middle of their upper edge, the tibiæ obtusely dentated within, below the middle. Long. 16 millim.

The lateral tubercles of the thorax are much more developed in this species than in other members of the group of genera approximately allied to *Niphona*. The broadly rounded apices of the elytra are also peculiar; but in all its other characters it agrees with the numerous other species of *Ocheutes* that I have examined.

NEW SPECIES OF RHOPALOCERA FROM NORTH-WEST CHINA.

By J. H. Leech, B.A., F.L.S., &c.

My collectors, Messrs. Pratt and Kricheldorff, have just returned from China, and have brought with them a very fine collection of Lepidoptera, obtained at Omei-Shan and some other districts nearer the Thibetan frontier.

Among the species comprising the collection are the following twenty-three Rhopalocera, which I believe are new to Science :—

Lethe simulans, sp. n.

♂. Nearly allied to *Lethe nigrifasciata*, Leech (Entom. xxiii. p. 28), but much smaller in size and darker in colour; the black transverse band of primaries is inconspicuous, and is not dilated at any part of its outer edge: on the secondaries the black marginal spots are similar to those of *L. nigrifasciata*. Fringes brown. Under surface greyish brown; basal half of primaries darker, limited by a fairly broad brown fascia, which is not edged with paler as in *L. nigrifasciata;* there are two brownish bars in discal cell: all the ocelli of secondaries are distinctly ringed with bluish white. Expanse, 60 mm.

Four male specimens captured, in July, at Omei-Shan.

This species is superficially like *Lethe tristigmata*. Elwes (Trans. Ent Soc. Lond. 1888, p. 318, pl. viii. fig. 1), but is distinguished by the different colour of under surface, angulation of transverse lines, and character of apical spots.

Lethe calisto, sp. n.

♂. Allied to *Lethe nicetas* Hew., with which species it agrees in many respects, but may be distinguished therefrom by the rounder wings, absence of any red in the composition of the brown coloration of all the wings, and of black spots on secondaries; further, the primaries are devoid of markings, and the fringes of all the wings are white chequered with blackish. On the under surface the primaries are fuscous grey-brown, with markings similar to those of *L. nicetas:* the secondaries are grey-brown, with the basal half traversed by four silvery-lilac lines; the outermost of these lines, sinuate to

first median nervule and bidentate between that point and the abdominal margin, is followed by a dark brown band, which is broad towards costa and attenuated towards abdominal margin ; there are no yellow markings between this band and the well-formed ocelli, which are placed further from the margin.

♀. Primaries have a yellow macular submarginal band, slightly angulated below costa, and a short oblique band, of the same colour, from middle of costa extending almost to the submarginal band ; there is a black spot at outer angle of secondaries. On the under surface of secondaries there are some yellow spots, as in the same sex of *L. nicetas*. Expanse, ♂ 60 mm., ♀ 64 mm.

A few examples captured at Omei-Shan, in June and July, 1890; and I have a female specimen which was taken at Wa-Shan, in June, 1889.

Lethe gemina, sp. n.

♂. Pale brownish, darker on the external margin of all the wings ; the primaries have a dusky angulated fascia beyond the middle, and a black spot ringed with fulvous towards apex : the secondaries have four large black submarginal spots, set in fulvous rings and arranged in pairs ; the fourth spot has a white centre, and the rings of the second and third are connected by a fulvous patch which encloses a small black dash in its upper portion ; there is a small black spot ringed with fulvous above anal angle, and a broad fulvous line, edged internally with black, and preceded by a greyish line parallel with outer margin. Under surface paler than above ; the primaries have a broad pale violet-grey submarginal band from the apical ocellus to inner margin ; a fulvous line, bordered internally with black and pale violet-grey, parallel with outer margin : secondaries have a large ocellus at outer angle, and a similar one, together with a minute one, at anal angle ; these ocelli are bordered with pale violet-grey, and preceded by a curved and angulated brown band ; discal linear spot brown, followed by a pale violet-grey patch. Expanse, 66 mm.

This species belongs to the *syrcis* group of the genus *Lethe*. One male specimen captured at Moupin, in July.

Neope oberthüri, sp. n.

♀. Closely allied to *Neope romanovi*. Leech (Entom. xxiii, p. 29), with which species it agrees almost exactly in the markings of the upper surface, although the colour is darker. On the under surface the present species differs from *N. romanovi* in the following characters :—The primaries are reddish brown ; the discal cell is crossed by three black bars, the outer one very broad ; beyond the cell is a blackish transverse band, broadest on the costa, where it is outwardly bordered with white : there is a submarginal series of seven spots ; the first is a small white one on the costa ; the second, pale but ill-defined ; third, a true ocellus with white pupil ; fourth, an irregular white blotch ; fifth and sixth, large black spots surrounded with pale fulvous ; seventh, a large pale fulvous patch. The secondaries are dark brown suffused with purplish, with blackish ill-defined transverse lines on the basal half of the wing ; the limiting line is blackish, sinuate, bordered outwardly with whitish and inwardly with pale brown, and unites with a fairly large black spot about the centre of the wing ; the ocelli are seven in number, and arranged in a true curve. Clubs of antennæ are black, tipped with reddish ; in *N. romanovi* the clubs are entirely reddish. Expanse, 80 mm.

One female specimen taken in July, at Omei-Shan.

Neorina patria.

Very similar to *Neorina (Cyllo) crishna*, Westw., but much smaller, and the colour is more fuliginous; the outer edge of the creamy-white central band of primaries is sinuous, but clearly defined; the subapical ocellus is, in consequence of the dark ground colour, very indistinct, and the two white spots above it and one below are placed as in *N. hilda*, Westw.; the apical portion of the outer margin is creamy-white, but there are no ocelli on the upper surface of these wings; there is an obscure pale submarginal band on all the wings, The colour of the under surface is browner than above; the band of primaries is yellow between cell and costa; the subapical ocellus is well defined, equal in size to that of *N. hilda*, and, as in that species, the two black submarginal lines are preceded by a lilac suffusion. On the secondaries there is a large ocellus towards outer angle, and a smaller one towards anal angle; above the last there is often a more or less distinct bluish spot, sometimes ringed with black; there are two black submarginal lines,—the outer of these is broad and wavy, the inner narrow and undulating; the area immediately preceding the inner line is suffused with lilac, as also is that of the abdominal margin. Expanse, ♂ 90—100 mm., ♀ 100 mm.

Omei-Shan, June and July; Moupin, July.

Ragadia latifasciata, sp. n.

Allied to *Ragadia crisilda*, Hewitson, but rather browner in colour.

♂. The central area of primaries is traversed by a broad conical white fascia, the apex of which does not reach the costa, but the white colour extends slightly along the inner margin on each side of its base; between fascia and base of wing are two pallid transverse bands, and there is a similar band before the outer margin; neither of these are continued through to the costa. Secondaries have a broad white fascia before the middle of the wing, and an interrupted white submarginal band; the pallid bands of primaries are continued, and there are some dusky round spots on the central area. Under surface brownish; the transverse markings of all the wings are white, but those on the primaries approach nearer to the costa, and these wings have a white line on the outer margin: there are eight ocelli (black spots with silver centres and yellowish rings) on the primaries, and four on the secondaries; of the latter the second is large, oval, and bipupillated,—the fourth also has two pupils.

♀. Similar to the male, but the inner margin is broadly white, as also is the lower portion of submarginal band; the submarginal band of secondaries is broad and uninterrupted. Expanse, ♂ 50 mm., ♀ 54 mm.

Moupin, July.

Acrophthalmia thalia, sp. n.

♂. Allied to *Acrophthalmia chione*, Feld.,* but the white central band is narrower, extending from costa to inner margin on the secondaries, and from inner margin almost to costa on the primaries; the ocellus on the upper surface of primaries is placed almost exactly as in *A. chione*, but, although smaller, is more distinct, and has a minute white pupil; the secondaries also have a distinct ocellus towards anal angle; there are two pale lines parallel with outer margin on all the wings, but these are most clearly defined on the secondaries. On the under surface the ocelli are as above, but ringed with fulvous, and there are, in addition, one ocellus at outer angle of secondaries and two smaller ones between it and that at anal angle; the white central

* Reise Nov. Lep. iii. p. 486, pl. 68, figs. 12, 13 (1867).

band and double marginal line on all the wings exactly as above, but there is also a narrow leaden-grey submarginal band on each wing; that on the primaries starts from the costa before the apical ocellus, around which it curves, and then continues a slightly sinuous course to the inner margin; on the secondaries the band is deeply indented between the two larger ocelli. Fringes white.

♀. Similar to the male, but the central white band is rather broader and the external margins of the wings are rounder. Expanse, 50 mm.

Occurs at Pautze-Fang, Omei-Shan, in July.

Enispe lunatus, sp. n.

♂. Allied to *Enispe euthymius*, Doubleday,* but the anal angle is less acuminate, the cell of primaries is not closed by a black bar, and the black discal spot is linear, curved, and sometimes bifurcate; the submarginal black line is formed of a series of curves instead of angles as in *E. euthymius*, and is preceded by a few sagittate marks placed on the nervules. On the secondaries the only markings are two submarginal lines, the first lunulated, the second serrated. The under surface is pale yellowish brown, with some faint dusky mottling on the outer third of all the wings; two angulated sub-basal lines, central bar, and interrupted submarginal line on primaries, dark brown: on the secondaries the brown sub-basal line is wavy to the median nervure and augulated before submedian; the central line is deep brown; there is a large black spot, surrounded with brown in the first cellular interspace, and a similar spot with a white central dot in the first median interspace; submarginal line as on primaries.

♀. Similar to male, but the costal area of primaries from cell to apex is white, and irregular bands of the same colour precede and follow the submarginal line; the central transverse markings on all the wings are similar in character to those of the same sex of *E. euthymius*. Expanse, ♂ 84 mm., ♀ 96 mm.

Several specimens taken in July at Moupin.

Vanessa fenestra, sp. n.

♀. Primaries reddish-fulvous, clouded with fuscous-brown along two-thirds of the inner margin and towards apex; there is a large quadrate yellowish-white spot before end of cell; this is preceded by a broad black bar, and outwardly edged with black; before the sub-apical cloud, which encloses four hyaline spots, is a short, oblique, yellow macular band, tinged outwardly with reddish, and separated from a round subhyaline spot by the third median nervule; below this is a large bluish-centred black spot, intersected by the first and second median nervules, and its lower edge confluent with a black spot on inner margin; the outer margin is bordered with fuscous; the submarginal band is reddish below costa, then yellowish, terminating in a whitish spot just above the submedian nervure. Secondaries reddish fulvous; basal third, abdominal area, and outer marginal border, fuscous-brown; central spot blackish; there is a broad central transverse band, composed of black oblong spots with yellowish or whitish centres; this band is indistinct towards the costa, where it is represented by a broad, longitudinal, yellowish spot, narrowly edged outwardly and above with black, and it terminates in the first median interspace. Under surface of primaries same as above, but paler, and there is no black spot towards inner angle; the secondaries are pale whity-brown, mottled and irrorated with reddish-brown, and traversed by a chocolate-brown fascia, which is fairly broad at the costa, but narrow throughout the rest of its course to the

* Gen. Diurn. Lep. ii. p. 292, pl. xi. fig. 2.

anal angle; the median nervure and first branch are also chocolate-brown; there is a small brown discal spot, and indications of a submarginal series of the same colour, the lower spots of this series preceded by pale ones. Expanse, 77 mm.

One female specimen of this novelty was captured, in July, at Omei-Shan.

I have placed this species in the genus *Vanessa*, but only provisionally, because the character of palpi, which are very long and slightly recurved, as also the thicker and shorter antennæ, point to its being an aberrant member of that genus.

Hestina subviridis, sp. n.

Resembles *Hestina assimilis*, Linn., on the upper surface, but there is no trace of red markings on the secondaries. On the under surface this species comes nearer to *H. nigrivena*, Leech (Entom. xxiii. p. 31), but the colour is greener; on the secondaries there is a black fold-line in submedian interspace; the venation of all the wings is narrower, and the basal portion of costal area is less conspicuously streaked with black. Head black, but not spotted with white; thorax and abdomen black, narrowly striped with whitish. Expanse, 80 mm.

Wa-ssu-Kow, June.

Euripus funebris, sp. n.

♂. Velvety blue-black. The outer half of primaries is greyish, and appears to be thinly clothed with scales; this is intersected by the bluish-black nervules, and some longitudinal bars of the same colour in the interspaces; there is a fairly broad crimson dash, sprinkled with black scales, from the base to the middle of cell. The outer third of secondaries has some greyish dashes between the nervules from the costa to third median. Under surface similar to above, but the greyish markings on outer half are stronger, the crimson dash is much wider and occupies nearly the whole of the basal half of the cell, a bluish bar crosses the cell, and there is a bluish spot in each median interspace and two in the submedian: at the base of the secondaries, which are more fuscous, but otherwise as above, is a circular crimson mark broken up into segments by the neuration. Head black; collar white. Antennæ black, tipped with dark brown; palpi and front tibiæ marked with white. Expanse, 115 mm.

One male specimen of this novelty was captured at Omei-Shan, in July.

Limenitis livida, sp. n.

♂. Velvety black. Primaries have a bluish linear spot in the cell; a slightly curved bluish macular central band, and two blue lines parallel with outer margin; there are also two white spots near costa towards apex. Secondaries have two indistinct pale central lines, and two broad blue marginal lines, preceded by a wavy blue band; at the anal angle there is a reddish spot enclosing a black one. Under surface reddish-chocolate: the primaries have a fuscous-grey patch at the base, limited and dashed with black; there is a somewhat quadrate whitish patch, margined with black, in cell, and a paler patch of the ground colour, also margined with black, lies at the outer end of cell: the central macular band is white towards costa and inner margin, but suffused with blackish in the middle; there is a submarginal series of blackish spots, preceded on the costa by two white ones,

bordered outwardly by a pale fuscous band, which is traversed by a broad line of the ground colour. Secondaries have some blackish marks on basal area; the central area is traversed by a blackish band, which commences below a whitish spot on costa, and becomes indistinct towards abdominal margin; beyond is a broad band, darker than the ground colour; the outer fourth of wing is pale fuscous, intersected by an interrupted blackish band, the anal extremity of which is represented by two velvety black spots, and a band of the ground colour. Expanse, 74 mm.

Two male specimens taken at Omei-Shan in July.

This species is allied to *L. populi* var. *tremulæ*, Esp., but is easily separated therefrom.

Limenitis albomaculata, sp. n.

♂. Velvety black; an elongated oval white spot, edged externally with bluish, is placed obliquely on the central area of primaries, and a smaller white spot lies towards the apex of the wing; a large white transverse oval spot occupies the central area of the secondaries,—this is edged outwardly with blue, but its lower end is not well defined. Fringes of the ground colour chequered with white. Under surface reddish brown: primaries have an abbreviated oblique central fascia, bluish white; the discal cell is nearly filled up with blackish, and crossed by two bluish white bars; there is a broad, blackish, longitudinal dash in each nervular interspace,—these are more or less interrupted towards outer margin; towards apex there are two white spots, the lower of these is nearly round: secondaries have the basal half bluish white, except along the costal area, which is reddish brown; central transverse fascia slightly curved and attenuated towards the anal angle; the median portion of this band is white, the extremities bluish, and it is bordered on each side by a blackish line; on the outer marginal area is a double series of black spots, both followed by an interrupted violet-grey transverse line. Expanse, 64—76 mm.

Moupin, at an elevation of from 10,000 to 12,000 feet.

This species has a superficial resemblance to *Athyma punctata*, Leech (Entom. xxiii. p. 33), and also to *Hypolimnas misippus*, Linn.

Abrota pratti, sp. n.

♂. Allied to *Abrota mirus*, Fabr., but darker in coloration. The primaries are traversed by a black band as in *A. mirus*, but the space between median nervure and inner margin is not filled in with blackish; the cell is closed by a blackish open bar, and there are some other blackish marks within the cell; the black submarginal band is composed of lunulated spots, and is preceded by some more or less round black spots towards costa and inner margin; two pale spots near apex. The secondaries have a small black spot in the centre of basal area, and beyond are two equidistant black bands between first subcostal and first median nervules,—the outer one is broadest, and is interrupted by the second subcostal nervule; submarginal black band fairly broad and well defined; the outer margin of all the wings is narrowly bordered with black. Under surface brownish, suffused with violet-grey; markings darker, similar in form and position to those of *A. mirus*, except as regards the central line of all the wings, which in this species is broader and straight.

♀ Similar to the same sex of *Abrota mirus*, but the markings on upper surface are narrower, more clearly defined, and brighter fulvous; the apical white spots are much smaller, and the band in the cell is intersected through half its length by an interrupted black line. On the under surface all the

wings are reddish brown, suffused with violet-grey; the fulvous markings of the upper side are faintly visible: there are some whitish spots and clouds at the apex of primaries, and three pale spots ringed with reddish brown on the basal area of secondaries. Expanse, ♂ 78 mm., ♀ 90 mm.

Omei-Shan and Kwei-Chow, July.

EUTHALIA CONSOBRINA, sp. n.

Allied to *E. pratti*, Leech (ante, p. 4), but more olivaceous; the macular band of primaries is more oblique: on the secondaries there are two dark transverse bands beyond the middle; the first is not well defined, and near the costa edged with white: the second is parallel with outer margin, and broadest towards costa. Under surface similar to that of *E. patala*, Koll., but the spots forming the oblique band of primaries are smaller and differently shaped. Antennæ black; clubs broadly tipped with pale fulvous above, entirely fulvous beneath. Expanse, 76—88 mm.

Omei-Shan, June and July.

EUTHALIA OMEIA, sp. n.

♂. Pale yellowish-brown, with olivaceous reflections; the markings are very like those of *Euthalia* (*Adolias*) *anyte*, Hew.,* but the outer edge of the central band is less indented; the second transverse band is nearer the outer margin, and there are no indications of any round spots on the space between these bands; below the median nervure is a large, ill-defined, triangular, fuscous-brown patch, limited externally by the central band, and extending upwards as far as the second median nervule. Secondaries brown, tinged with olivaceous, with a broad yellow patch occupying the costal half of the wing, but not quite extending to the outer margin. Under surface yellowish, the inner marginal area of secondaries tinged with green; the markings are similar to those of *E. anyte*, but there are no pale spots on the primaries, and those on the secondaries are not well defined. Antennæ black, with the club broadly tipped with yellow above, and entirely fulvous beneath. Expanse, 70 mm.

Omei-Shan, June and July.

The broad yellow patch on secondaries at once distinguishes this species from its congeners.

APATURA SUBCÆRULEA, sp. n.

♂. Primaries fuliginous, basal half tinged with greenish; the central yellowish-white fascia is represented by three spots below costa and three below second median nervule; the submarginal band is indicated by some yellowish-white spots; the largest of these are placed in the subcostal and median interspaces; in the first median interspace there is also a round but obscure black spot; some fulvous spots towards anal angle. Secondaries fuliginous, tinged with green over the basal three-fourths; on the outer limit of this green suffusion are some fulvous spots, most distinct towards costa, and a black spot towards anal angle; the pale outer margin is interrupted at the nervules with fuliginous, and intersected by a transverse fuliginous line. Under surface whitish-blue: primaries are clouded with fuscous along the inner margin and on central area, and the markings of upper side are reproduced: the secondaries are traversed by a silvery white fascia (faintly showing through on the upper side), bordered internally with pale ochreous-brown and an external suffusion of the same colour; the spot above anal angle has a pale centre, and is ringed with pale fulvous; a pale ochreous-brown line,

* Exot. Butt. vol. iii. *Adolias*, pl. II. fig. 5.

parallel with outer margin, is preceded by a silvery band. Expanse, ♂ 88 mm., ♀ 100 mm.

♀. Similar to the male, but the secondaries have a distinct whitish central fascia, which is almost straight, and becomes attenuated towards anal angle.

Omei-Shan, June and July.

On the upper surface the female of this species has a great likeness to the same sex of *A. iris*, but the band on secondaries and greenish suffusion on all the wings distinguish it at once.

Apatura fulva, sp. n.

♂. Pale fulvous, with brownish markings. Primaries have a large blackish-brown patch at end of discal cell, and round spot of the same colour in the first median interspace; there are two pale spots in the apical third, which is fuscous-brown; a band of the same colour is continued along the outer margin, but terminates just beyond the first median interspace, and there are clouds of the same between the two dark brown spots and in the submedian interspace, uniting at the inner angle with a fuscous cloud, which extends along the inner margin. Secondaries have a dark brown spot in first median interspace, and the fuscous-brown outer marginal border is intersected by a transverse band of the ground colour. Under surface pale fulvous. All the markings of primaries are faintly reproduced, with the exception of the round spot in first median interspace, which is very distinct, and has a bluish dot towards its outer edge: the secondaries have the marginal markings of upper side faintly reproduced, but there is also a broad reddish transverse central line followed by a series of pale blotches; the ocellus is distinct and has a bluish centre. Expanse, 78 mm.

Omei-Shan, July.

Charaxes ganymedes, sp. n.

♂. This species bears a strong resemblance to *Charaxes eudamippus*, Doubl., but it is distinguished by the broader marginal borders of all the wings. On the primaries the costal border is continued to the basal third of the wing, which is entirely black; the whitish ground colour is thus restricted to the lower portion of central third, and is intersected by the nervures; there is a large white spot at the end of discal cell, and two smaller ones beyond; the submarginal band is composed of eight white spots, the costal one very small, and that on inner margin double; there is a second macular whitish band nearer to, and parallel with, the outer margin, formed of nine spots. On the secondaries the black border occupies the whole of the outer third of the wing, and is traversed by a bluish-white band, which is interrupted and more decidedly blue towards anal angle. The tails are thicker and shorter than those of *C. eudamippus*. On the under surface the colour is silvery-grey; the markings are formed as in *C. eudamippus*, but are brown in colour, and edged with black. The body is black. Expanse, ♂ 98 mm., ♀ 106 mm.

Taken at Omei-Shan in July and August.

Charaxes posidonius, sp. n.

♂. Closely allied to *Charaxes narcæus* var. *mandarinus*, Feld., but the discal cell of primaries is filled up with blackish, there is a small green elongate spot just outside the cell, and a double spot of the same colour beyond; the submarginal band is composed of smaller and yellower spots. On the secondaries the central oblique fuscous streak is not continued much

beyond the middle of the wing; the marginal band is formed of quadrate, and lunular, white or cream-coloured spots,—from the lower edge of the fourth, fifth and sixth bluish streaks are projected into the tails, which are longer and thicker than in *mandarinus;* there are also some bluish marks, above anal angle, along the inner edge of the black band. On the under surface the discal cell of primaries is filled up with greyish and spotted with black; there is a wedge-shaped olive-brown blotch edged outwardly with black beyond the cell; and the olive-brown submarginal band is followed by a whitish one, composed of lunular spots, each edged outwardly with blackish: the inner edge of the marginal band of secondaries is more indented than in *mandarinus*, and the blackish outer margin is bordered internally with reddish and yellow; the abdominal fold is speckled with black. Expanse, 88 mm.

Two males taken at Wa-ssu-Kow in June, and one at Ni-tou in May.

DESCRIPTIONS OF SOME NEW SPECIES OF PHYTOPHAGOUS COLEOPTERA FROM INDIA.

By Martin Jacoby, F.E.S.

Lema assamensis, n. sp.

Black, impubescent, above rufous; the thorax with two transverse depressions, impunctate; elytra with a deep sutural depression, finely punctate-striate, the interstices slightly costate near the apex. Length, 3½—4 lines.

Head impunctate, the lateral grooves deep, the intermediate space undivided; labrum piceous; antennæ long, filiform, black: thorax scarcely longer than broad, with an anterior and posterior transverse sulcation, the latter not very deep, the surface entirely impunctate: elytra with a longitudinal depression within the shoulders and a deeper subquadrate sutural one below the base, the punctures very distinct but not deep at the base, gradually diminishing posteriorly, the interstices near the lateral margins and apex costate; the under side, black, entirely glabrous, the last abdominal segments margined more or less with dark fulvous; legs black.

Hab. Assam.

This species, although closely allied to *L. hæmatomelas*, Lac., is larger than the latter, and the elytral depression is much deeper; the thorax is also somewhat longer; from other similarly coloured species the two thoracic depressions and black under side will separate *L. assamensis*. (Coll. Jacoby).

Lema nigricollis, n. sp.

Black, the head with two fulvous spots; thorax impunctate; elytra fulvous, with a sutural depression below the base, finely punctate-striate, the lateral margin thickened. Length, 3 lines.

Head black; the space between the eyes raised, fulvous, and divided by a central groove; antennæ extending to half the length of the elytra, black; thorax subquadrate, deeply constricted at the middle, with a deep transverse sulcation at some distance from the base, the surface entirely impunctate, shining, black; scutellum black, its apex truncate; elytra fulvous, with a sutural depression (less deep than in the preceding species) below the base, the punctures resembling those of *L. assamensis;* under side and legs black.

Hab. Assam.

Closely allied to the preceding species, but differing in the black head and thorax, and the want of the anterior sulcation of the latter. (Coll. Jacoby).

ASPIDOLOPHA RUGOSA, n. sp.

Metallic dark blue, closely pubescent; the basal joints of the antennæ, and the tibiæ and tarsi, fulvous; thorax rugosely punctured; the anterior half fulvous, the posterior one blue; elytra strongly punctured and rugose, fulvous; a spot at the shoulder, another at the apex, and a transverse band at the middle, dark blue. Length, 3 lines.

Head metallic blue, finely rugose, the eyes elongate, the inner space clothed with thick yellowish pubescence; antennæ extending to the base of the thorax, fuscous, the basal four joints flavous; thorax transverse, the sides slightly rounded, narrowed in front, the surface obsoletely depressed each side in front of the scutellum, rugosely punctured throughout, the anterior portion fulvous, the base with a transverse broad blue band, having its anterior edge irregularly dentate and divided at the middle, its sides obliquely cut; scutellum broad, dark blue, pubescent, its apex longitudinally raised; elytra strongly lobed laterally, closely and strongly punctured, the interspaces transversely rugose and wrinkled, with traces of longitudinal costæ towards the apex, fulvous; a spot at the shoulder, of transverse irregular shape, a transverse band at the middle extending nearly to either margin, and another sutural spot near the apex, blue; under-side thickly clothed with yellowish pubescence.

Hab. Sikkim.

The rugosely punctured thorax and elytra, in connection with the apical spot of the latter, sufficiently distinguishes this species from any of its congeners. (Coll. Jacoby).

COPTOCEPHALA VENTRALIS, n. sp.

Fulvous; the antennæ, the sides of the breast, a ventral spot and the pygidium, fuscous; the head and a spot on the thorax black; elytra metallic blue, closely punctured. Length, 2 lines.

Head bluish black, flat, scarcely perceptibly punctured; antennæ scarcely extending to the base of the thorax, black, the basal three joints obscure fulvous; thorax transverse, three times broader than long, the sides rounded, narrowed in front, the posterior margin straight at the sides, the median lobe slightly produced, the surface impunctate, fulvous, with a transversely-shaped black spot at the middle of the disc; scutellum triangular, not longer than broad, impunctate; elytra lobed at the sides, slightly narrowed posteriorly, dark metallic blue, closely and distinctly punctured, the punctures finer towards the apex, and here and there arranged in rows; under side fulvous, finely pubescent; the sides of the breast, and a spot at the last abdominal segment, as well as the pygidium, fuscous; femora fulvous; the apex of the tibiæ and the tarsi fuscous.

Hab. Assam. (Coll. Jacoby).

ANTIPHA HIRSUTA, n. sp.

Entirely fulvous; the antennæ (the basal joints excepted) black; thorax closely punctured; elytra clothed with fulvous pubescence, closely and irregularly punctured. Length, 2½ lines.

Head closely punctured, sparingly pubescent; antennæ filiform, the intermediate joints slightly widened, the lower three joints fulvous, the others black; thorax transverse, twice as broad as long, the sides straight, the anterior angles obliquely truncate, the disc with a small fovea at each side, closely and distinctly punctured, and sparingly pubescent; elytra ovate,

without basilar depression, closely impressed with larger and smaller punctures, clothed with rather long fulvous pubescence; under-side and legs fulvous, like the upper surface; prosternum narrow but distinct; anterior coxal cavities closed.

Hab. Assam.

This species possesses all the structural characters of *Antipha*, but differs from any of the species of that genus known to me, by the pubescent upper surface. (Coll. Jacoby).

ANTIPHA DIMIDIATICORNIS, n. sp.

Ovate, fulvous; the intermediate joints of the antennæ black; thorax very finely punctured: elytra metallic green, depressed below the base, closely and strongly punctured. Length, 3 lines.

Head convex, scarcely perceptibly punctured with a fovea between the eyes, the frontal tubercles flattened, divided by the apex of the broadly triangular clypeus; palpi fulvous; antennæ black, the basal three and the apical two joints fulvous, the fourth joint nearly twice the length of the third one; thorax transverse, nearly three times broader than long, the anterior angles obliquely truncate, the sides very slightly rounded, the surface sparingly and very finely punctured; scutellum black; elytra widened posteriorly, distinctly transversely depressed below the base, the depression extending to the sides, where it is more strongly marked, the disc closely and strongly punctured, the punctures a little less strong at the apex, bright metallic green; under-side and legs fulvous.

Hab. Kashmir, India.

The colour of the head and of the antennæ separates this species from *A. viridipennis*, Duviv.

ANTIPHA SUBCÆRULEA, n. sp,

Broadly ovate, convex, fulvous; the thorax narrowly transverse, nearly impunctate; elytra with a strong bluish gloss, strongly punctured, obsoletely transversely depressed below the shoulders. Length, 3 lines.

Head flattened, impunctate, the vertex with a longitudinal groove (absent in one specimen), frontal tubercles but slightly raised, joined in front to the flattened clypeus; labrum and palpi fulvous; antennæ filiform, extending to about half the length of the elytra, pale fulvous, the fourth joint longer than the third; thorax nearly three times broader than long, the anterior margin strongly concave, the posterior one parallel to it, the sides straight, the anterior angles obliquely produced, the surface impunctate at the disc, the sides with a few punctures, fulvous like the head; scutellum fulvous; elytra rounded, convex, widened posteriorly, with an obsolete depression below the base, more strongly marked at the sides, dark fulvous with a strong metallic bluish gloss, the surface closely and rather strongly punctured, the punctuation finer towards the apex, their epipleuræ very broad at the base; prosternum distinct.

Hab. Assam.

The broadly ovate shape and the colour of the elytra will help to distinguish this species from its congeners.

SASTRA HIRTIPENNIS, n. sp.

Oblong-ovate, widened posteriorly, fulvous; the apex of the tibiæ, and the tarsi, piceous; thorax strongly punctured; elytra dark violaceous, finely punctured, and sparingly pubescent. Length, 4 lines.

Head transversely grooved between the eyes, strongly punctured; antennæ filiform, fulvous, the third joint much longer than the following ones, the last three joints wanting; thorax transverse, the sides strongly dilated before the middle, the anterior margin concave, the surface with a round depression at each side and a narrow elongate one at the middle, closely and strongly punctured; scutellum broad, fulvous, pubescent; elytra widened posteriorly, convex, the sides depressed below the shoulders, dark violaceous-blue, very closely and finely punctured, sparingly clothed with very short whitish hairs; elytral epipleuræ continued below the middle; under side and femora pale fulvous; legs robust; tibiæ unarmed, their apex piceous; tarsi nearly black, claws bifid, the inner division very long; coxal cavities open.

Hab. Assam.

The colour of the elytra and their fine pubescence separates this species from any of its allies.

MALAXIA ASSAMENSIS, n. sp.

Narrowly elongate, black; the knees and base of the tibiæ more or less testaceous; thorax finely pubescent; elytra finely granulate, metallic green, a sutural stripe purplish. Length, 2 lines.

Head black, finely rugose, the eyes prominent; antennæ nearly two-thirds the length of the body, black, pubescent, the two basal joints stained with fulvous at the base and apex, the fourth joint nearly double the length of the third one; thorax transverse, the sides rather rounded, the anterior portion transversely swollen, the disc transversely depressed, very finely rugose, and clothed with obscure fulvous pubescence; scutellum black; elytra finely granulate throughout, metallic green, very sparingly clothed with whitish pubescence, a rather broad sutural stripe from the base to the apex, purplish; under side and legs black; the knees and the base of the tibiæ more or less fulvous.

Hab. Assam.

M. assamensis seems allied to *M. purpurea*, Allard, but differs in the black thorax, the different comparative length of the joints of the antennæ, and in the colour of the elytra.

OIDES NIGRIPES, n. sp.

Broadly ovate, pale testaceous; the head, antennæ, legs, breast, and a spot at each abdominal segment, black; thorax impunctate; elytra remotely and irregularly punctured. Length, 6 lines.

Head with a deep fovea at the vertex, black, the latter with a central obscure testaceous spot; labrum testaceous, clothed with long hairs; antennæ nearly extending to half the length of the elytra, black, the third joint the longest, the following ones gradually shorter; thorax narrowly transverse, the sides widened and rounded towards the base, the surface impunctate, with a round fovea at each side, and an obscure oblique depression near the posterior angles; scutellum flavous; elytra widened towards the middle, very coarse, irregularly, deeply, but not very closely punctured, the interstices also very finely punctate, their epipleuræ deeply concave, disappearing below the base; below and the legs black; abdomen flavous, with a black spot at each side of the abdominal segments.

Hab. Sikkim, India.

The black head and legs, in connection with the sculpture of the elytra, separates *O. nigripes* from any nearly similarly-coloured species.

ON SOME NEW SPECIES OF PHYTOPHAGOUS COLEOPTERA FROM VARIOUS REGIONS.

By Martin Jacoby, F.E.S.

Gynandrophthalma apicalis, n. sp.

Elongate, fulvous; the antennæ (the basal joints excepted) black; thorax impunctate; elytra extremely finely punctured in double rows, violaceous blue, their apex fulvous. Length, 2—3½ lines.

Head with a shallow depression between the eyes, this space finely punctured; eyes triangularly notched, the anterior margin of the epistome very deeply emarginate-concave, the sides also emarginate to a less extent; antennæ not quite extending to the base of the thorax, black, the lower four joints fulvous; thorax transverse, the sides slightly rounded, the posterior margin broadly but slightly lobed at the middle, the surface impunctate or with a few minute punctures, obsoletely transversely depressed in front of the scutellum; the latter fulvous, its apex rounded; elytra dark violaceous blue, shining, with double rows of very fine punctures, the apex impunctate, fulvous; underside and legs entirely of that colour.

Hab. South Africa, Rhobomp, Sierra Leone. (Coll. Jacoby.)

This species, of which the female insect is nearly twice the size of the male, seems to be closely allied to *G. terminata*, Lac., but differs in the entirely fulvous underside, and in the colour of the elytra and their fine punctuation.

A specimen of this and the following species were kindly given to me by M. Deyrolle.

Gynandrophthalma seminigra, n. sp.

Black; the thorax strongly but sparingly punctured; elytra deeply and closely punctured, the anterior half fulvous; a spot near the middle, and the posterior portion, black. Length, 3 lines.

Head finely rugosely punctured between the eyes, the vertex smooth; antennæ extending to the base of the thorax, black, the basal three joints fulvous; thorax transverse, nearly three times broader than long, the sides slightly rounded, with a narrow margin, the surface remotely and strongly punctured, black, shining; scutellum black, with a few punctures; elytra subcylindrical, slightly constricted at the sides near the middle, closely and strongly punctured, the punctures arranged in ill-defined striæ near the apex, the posterior portion black, its anterior edge deeply concave, the anterior portion fulvous and including a subquadrate black spot near the suture before the middle; underside and legs black, clothed with greyish pubescence.

Hab. Rhobomp, Sierra Leone. (Coll. Jacoby.)

Colasposoma thibettanum, n. sp.

Metallic violaceous blue; the antennæ and tarsi black; the head and thorax closely and strongly punctured; elytra bright metallic cupreous, the lateral margin violaceous, the surface closely semipunctate-striate; the femora with a small tooth. Length, 5 lines.

Of robust and subquadrate shape; the head closely and strongly punctured, the interstices at the sides longitudinally strigose, the middle with a

narrow longitudinal groove which terminates into a small metallic-green smooth space; the base of the antennæ with a similar smooth and coloured elevation; labrum, palpi, and mandibles black; antennæ about half the length of the body, black, the basal joint violaceous, the third joint distinctly longer than the fourth, the terminal five joints slightly widened; thorax about three times broader than long, the sides rounded, the angles denti-form, the surface closely and strongly punctured throughout, the sides with a very obsolete depression; scutellum violaceous, its apex rounded, the base with a few punctures; elytra subquadrate, scarcely perceptibly depressed below the base, rather finer punctured than the thorax, the punctures stronger below the shoulders and semi-regularly arranged in closely rows on the disc, the interstices here and there slightly aciculate or wrinkled, the sides with a narrow reflexed metallic-blue margin, rest of the surface metallic reddish-cupreous; underside metallic bluish; the abdomen closely punctured; legs violaceous; the femora armed with a small tooth; prosternum very broad, clothed with yellowish pubescence.

Hab. Pedong (Thibet).

Of this large and handsome species, easily distinguished by its blue head and thorax, and the cupreous elytra in connection with the punctuation, I received a single—apparently male—specimen from M. Deyrolle.

Cynorta abdominalis, n. sp.

Metallic green; the antennæ and tibiæ black; thorax sparingly punctured, bi-impressed; elytra finely rugose, closely punctured and sparingly pubescent; abdomen flavous. Length, 2 lines.

Head entirely impunctate, the frontal elevations very strongly raised; clypeus much swollen, triangular; labrum and palpi piceous; antennæ half the length of the body, filiform, black, the basal joint metallic æneous or cupreous, the fourth longer than the third joint; thorax subquadrate, the lateral and posterior margins slightly rounded, the angles blunt and thickened, surface with a more or less distinct fovea on each side very sparingly punctured; scutellum impunctate; elytra finely and very closely punctured, the interstices finely transversely rugose throughout, clothed sparingly with fine whitish hairs; breast and femora metallic green; abdomen flavous; tibiæ mucronate, anterior coxal cavities closed.

Hab. Java (Fruhstorfer).

The coloration of this species will distinguish it from any of its allies; in some specimens the depressions of the thorax are absent.

Haplosoma metallica, n. sp.

Elongate, blackish blue; the antennæ black; thorax transversely sulcate, impunctate; elytra metallic purplish, scarcely perceptibly punctured. Length, 4 lines.

Head metallic dark blue, impunctate, the vertex with a central longitudinal groove, the frontal tubercles distinct, broadly trigonate; labrum piceous, margined with testaceous; palpi black, the terminal joint acutely pointed and rather elongate; antennæ filiform, two-thirds the length of the body, black; thorax one-half broader than long, the lateral margin slightly rounded, preceded by an elongate depression, surface deeply transversely sulcate, impunctate, dark blue; scutellum broad, metallic blue; elytra elongate, of a violet-purplish colour, the surface with a few fine punctures only visible under a strong lens, and some obscure longitudinal depressions, their epipleuræ broad at the extreme base, but disappearing directly below the latter; legs elongate, tibiæ unarmed, the first joint of the posterior tarsi as long as the three following joints together, claws bifid; anterior coxal cavities open.

Hab. New Guinea.

Although this species differs somewhat from the typical forms in the absence of the elytral epipleuræ except at the base, the bifid claws and general shape and the sulcate thorax agree with *Hoplasoma*, from any of the species of which *H. metallica* entirely differs in its metallic coloration; the specimen was obtained by Colonel Sayer.

Cneorane foveicollis, n. sp.

Head, the apical joints of the antennæ, femora and tibiæ fulvous; thorax pale fulvous, with a fovea anteriorly; elytra flavous, the suture and three longitudinal stripes on each elytron, as well as the breast, black. ♂. Antennæ with the apical joints strongly dilated. Length, 2—2½ lines.

♂. Head impunctate, the frontal tubercles strongly raised; antennæ not extending to half the length of the elytra, black, the basal and the six apical joints fulvous, the latter gradually and broadly dilated; thorax about one-half broader than long, the sides strongly rounded, the surface closely and finely punctured with a triangular depression at the middle near the anterior margin; scutellum black; elytra extremely finely and closely punctured, flavous, the suture narrowly black; each elytron with three longitudinal stripes not extending to the apex, the inner one the shortest and commencing at the middle, the two outer ones joined at the base; breast black; legs rufous, tarsi black; the abdomen fulvous.

Hab. South Africa.

The dilated joints of the antennæ in the male, and their colour, as well as the colour of the underside and legs, separate this species from *C. lineata*, Wiedem., with which it agrees in the thoracic fovea and the pattern of the elytra.

Luperus africanus, n. sp.

Pale testaceous, finely pubescent; the antennæ, a spot at the vertex, the sides and a central band of the thorax, the lateral and sutural margins of the elytra, and the knees and tarsi, black; thorax and elytra finely pubescent, impunctate. Length, 1½—1¾ line.

Head rather swollen, clothed with fine silvery pubescence, a triangular spot at the vertex black; eyes large; the antennæ longer than the body in the male, black, the two or three basal joints sometimes flavous, the third joint double as long as the second, the fourth and the two following joints slightly curved; thorax scarcely broader than long, the sides nearly straight, the angles not prominent, the posterior ones somewhat obliquely cut, the surface covered with fine silky pubescence, testaceous, the sides and the middle with a narrow longitudinal black band; scutellum black; elytra pubescent, like the thorax, the sutural and lateral margins narrowly black; underside and legs testaceous, the femora (especially the posterior ones) rather robust, their apex black; tibiæ with a distinct spine; the first joint of the posterior tarsi as long as the three following joints together; claws appendiculate; anterior coxal cavities open.

Hab. South Africa.

Of this interesting little species, in which the pubescence of the upper surface obscures any punctuation, I received some specimens from the Museum at Cape Town.

ANTIPHA ABDOMINALIS, *Jac.*

Var. Underside black; elytra with a narrow, transverse, basal black band.

Hab. Borneo.

Of this species I have received several specimens, which agree in every respect with the type except in coloration; differing from the typical form in the entirely black underside, and in the size of the black elytral portion, which is here reduced to a narrow basal band; the flavous and very long antennæ, with very short second and third joints, and their other particulars, agree with the type. *A. nigra*, and its variety described in the Belgian 'Comptes-rendus' (1889), by M. Allard, seem to be identical with *A. abdominalis* and the variety described here.

ANTIPHA ORNATA, n. sp.

Ovate, rufous; antennæ, tibiæ and tarsi black; thorax with a few fine punctures; elytra closely semi-punctate-striate, rufous, with a large testaceous transverse central band margined with black. Length, 3 lines.

Head impunctate; antennæ with the two basal joints fulvous, stained with piceous above, the following six joints black, the rest broken off; thorax transverse, the sides nearly straight, the surface with a few very fine punctures, rufous; elytra depressed below the base, punctured in closely arranged rows, rufous; the middle occupied by a broad, yellowish, transverse band, which is surrounded by a narrow black margin, very narrow at the sides, broader anteriorly and posteriorly; underside rufous; tibiæ and tarsi black.

Hab. Java (*Fruhstorfer*).

Evidently closely allied to *A. histrio*, Baly, from Assam, but differing in the colour of the legs, the shape of the black elytral bands, and in the rufous—not black—base of the elytra.

ANTIPHA IMPRESSICOLLIS, n. sp.

Fulvous; the antennæ, tibiæ, tarsi, and the abdomen, black; thorax with two deep impressions, impunctate; elytra metallic purplish, closely and distinctly punctured. Length, 3 lines.

Head fulvous, impunctate, the frontal elevations narrowly transverse; the clypeus acutely raised, triangular; antennæ extending to two-thirds the length of the elytra, black, the second and third joints extremely small, the fourth very elongate, slightly longer than the third joint; thorax twice as broad as long, the sides straight, the anterior margin concave, the angles not produced, the surface impunctate with a deep fovea at each side, fulvous; scutellum black; elytra with a distinct basal depression; the shoulders very prominent; the surface very closely, evenly, and rather strongly punctured throughout, of a purplish colour; the breast and the femora fulvous; the tibiæ and tarsi black; abdomen greenish black; prosternum very narrow; anterior coxal cavities closed.

Hab. Thibet.

A single specimen of this distinct species is contained in my collection.

Apopyhlia elegantula, n. sp.

Fulvous; the apical joints of the antennæ black; vertex piceous; thorax strongly and closely punctured; elytra metallic green, finely rugose, the lateral margins extremely narrowly fulvous. Length, 2 lines.

Head finely rugose, fulvous; the vertex piceous, the frontal elevations broadly trigonate; labrum and mandibles piceous; antennæ more than half the length of the body, black, the basal joints fulvous, the terminal ones gradually thickened, the third joint slightly longer than the fourth; thorax subquadrate slightly narrowed at the base, fulvous, the surface coarsely and rather closely punctured, with a narrow central groove; scutellum black; elytra of a tender metallic green, closely punctured, and very finely rugose; the extreme lateral margins, from the middle to the apex, fulvous; underside and legs fulvous; tarsi more or less darkened.

Hab. South Africa.

The nearly quadrate thorax, the absence of any thoracic spots or band, and the very narrow fulvous margin of the elytra, separate this species from *A. consanguinea*, Alld. I received two specimens from the Museum at Cape Town.

Apophylia nigritarsis, n. sp.

Black; the basal joints of the antennæ, the head, thorax and legs fulvous; elytra metallic green, closely and finely punctured; the apex of the tibiæ and the tarsi black. Length, 3 lines.

Head impunctate, the frontal elevations narrowly transverse, the carina acute; labrum piceous; antennæ about half the length of the body, filiform, black, the two or three basal joints fulvous, the fourth joint distinctly longer than the third; thorax transverse, narrowed in front, the sides rounded, the surface rather convex, impunctate, fulvous; scutellum black; elytra bright metallic green, finely and closely punctured; tibiæ unarmed.

Hab. South Africa.

This species, of which I received some specimens from the Cape Town Museum, is evidently closely allied to *A. bipunctata*, Alld., but differs in the colour of the underside, the absence of the thoracic spots, and the simply punctured—not finely rugose—elytra. The colour of the head, which is fulvous, separates the species from several other nearly similarly coloured species.

Genus Idacantha, *Chev.*

There seems to exist considerable confusion in regard to this genus, which has been increased by a synoptic table of the species, published by M. Allard, in the French Annals of 1888. In this table, species belonging to the genus *Aulacophora* are mixed up with those of *Idacantha*, the principal character of distinction between the two genera—the appendiculate or bifid claws—having been entirely unnoticed, in spite of Von Harold's explanation in the 'Coleopterologische Hefte.' Further errors committed by Allard consist of giving wrong descriptions of old species:—Thus *Idacantha picea*, Fabr., is described by Allard as having black elytra, each with three fulvous spots, while Fabricius's description simply gives the elytra as piceous.

Diacantha chevrolati, Guér., is described by the author as having flavous elytra, each with four greenish black spots; Allard describes the species as black, with two large fulvous spots. *A. petersi*, Bertol., *A. divisa*, Gerst., and *A. bispinosa*, Fabr., are placed by Allard in *Idacantha*,—the true place of these species being *Aulacophora*, on account of the bifid claws: this is correctly given in Duvivier's 'Catalogue of Phytophaga,' while the type of the genus *Idacantha*—*D. bidentata*, Fabr.—is placed by Allard in *Aulacophora*: other species described by Karsch are entirely ignored or likewise misplaced. The same remarks apply, unfortunately, to the table of the species of *Aulacophora* by Allard, which has already been remarked by the late Mr. Baly in the 'Transactions' of the Entomological Society of London. It is therefore impossible to decide whether the species described by Allard really belong to *Idacantha* or to *Aulacophora*.

Chapuis has likewise mistaken the genus *Idacantha*, and overlooked the appendiculate claws and the narrow elytral epipleuræ. The following species seem to me to be undescribed, and are contained in my collection:—

IDACANTHA MADAGASCARIENSIS, n. sp.

Pale fulvous or testaceous; elytra metallic greenish-blue, finely and sparingly punctured; a transverse band at the middle not extending to either margin, and a large round spot near the apex, pale testaceous. ♂. Elytra with a conical tubercle near the apex, the sides with a costa. ♀. Elytra simple the apical spot absent. Length, 3½—4 lines.

♂. Head fulvous, entirely impunctate, the frontal elevations narrow, the carina acute and narrow, palpi strongly thickened; antennæ dark fulvous, scarcely extending to half the length of the elytra; thorax transverse, dark fulvous, the sides widened anteriorly, the surface with a few punctures near the anterior angles, the disc with a deep impression at each side; scutellum fulvous; elytra with a rather broad, medially widened margin, depressed below the base, of a bright metallic greenish-blue colour, the middle occupied by a broad pale testaceous transverse band, which does not extend to either margin, and a large round similarly coloured patch near the apex, extending to the sutural but not to the lateral or apical margin, each elytron with a large conical tubercle near the apex, close to the suture, and a longitudinal costa near the sides below the shoulder and abbreviated below the middle; underside and legs pale fulvous; claws appendiculate.

Hab. Madagascar (Matanga).

Of this well-marked species I possess a male and female specimen: the latter is more closely punctured, and devoid of the elytral tubercle, costa, and the apical spot, but this latter may possibly be present in other specimens. From *I. ephippiata*, Dalm., the present species differs in the nearly impunctate thorax, flavous tibiæ, and other particulars.

IDACANTHA ABDOMINALLIS, n. sp.

Black; the head, basal joint of the antennæ, the thorax, the femora, and the last abdominal segment, flavous; elytra fulvous, all the margins and a narrow transverse band at the middle black. Length 3—3½ lines.

Head impunctate, flavous; antennæ fuscous, the basal joints more or less flavous; thorax strongly transverse, the sides narrowed at the base, rounded before the middle, the disc impunctate, with a transverse groove which extends nearly across the entire disc; scutellum black; elytra widened towards the middle, very closely and finely punctured, reddish fulvous, all the margins narrowly black, as well as a narrow transverse band, placed at the middle, of somewhat curved shape, and joining the lateral and sutural margins; under side black, shining; the femora, base of the tibiæ, and the last abdominal segment, flavous; the sides of the abdomen also more or less spotted with flavous.

Hab. Transvaal; also Zambesi River.

The pattern of the elytra of this species differs from any of its congeners; the antennæ in one of my specimens are nearly entirely fulvous.

IDACANTHA PUNCTATISSIMA, n. sp.

Fulvous; the antennæ (the basal three joints excepted), the legs, and the elytra, black; thorax very sparingly and finely punctured; elytra strongly and closely punctate. Length, 3 lines.

Head impunctate, the vertex with a small fovea, the frontal elevations narrowly transverse, the carina broad; palpi black, the penultimate joint widened; antennæ black, the basal three joints and the base of the fourth joint fulvous; thorax rather strongly widened at the middle, fulvous, very finely and sparingly punctured, the disc with a transverse medially interrupted depression; scutellum fulvous; elytra longitudinally depressed below the shoulders, the lateral margins widened towards the middle, the surface very closely and strongly punctured, black, shining; legs entirely black, all the tibiæ armed with a spine.

Hab. South Africa.

Of this species, which may be known from *I. melanoptera*, Thoms., and some other nearly similarly coloured species, by the strong punctuation of the elytra, I possess a single apparently female specimen, without exact locality, from South Africa.

IDACANTHA (HYPERACANTHA) BIDENTATA, *Fabr.*

As already remarked above, Allard has placed this insect in *Aulacophora*, while Harold places it in *Idacantha*. Baly, in his remarks in the 'Entomological Transactions' for 1890, regarding this, says that, on account of the appendiculate claws, *I. bidentata* must find its place in *Hyperacantha;* but this statement is again misleading, since the appendiculate claws are just the characteristic structure of *Idacantha:* the insect can only be rightly placed in *Hyperantha* if the anterior tibiæ are unarmed, *in connection* with the appendiculate claws. As *I. bidentata* is the oldest described species, and must be looked upon as the type, it follows that if the anterior tibiæ are unarmed in that species, all species having the same structural character, and for which Chapuis established his genus *Hyperantha*, must be transferred to *Idacantha*, and *Hyperacantha* cannot stand, but must be considered a synonym.

DESCRIPTIONS OF NEW SPECIES OF GEOMETRÆ FROM CHINA, JAPAN, AND COREA.

By J. H. Leech, B.A., F.L.S., &c.

Urapteryx subpunctaria, sp. n.

Allied to *U. sambucaria*, and agreeing in colour with the var. *persica*, but it is much smaller; the antennæ are white above; the angle of secondaries is slightly notched, and is not prolonged into a tail; the transverse line of primaries are similar to those of *sambucaria*,, but the outer one is curved; the central line of secondaries runs parallel with the outer margin, with the outline of which it agrees in form; all the wings have a submarginal line, but this is fainter than the central ones—that on the primaries traverses the wing from the costa to inner angle, and that on the secondaries follows the outline of the wing. On the shining white under surface the central transverse lines are faintly reproduced, and the secondaries have a small black spot at the end of discal cell. Expanse, ♂ 42 mm., ♀ 50 mm.

Two specimens from Oiwake (coll. Pryer).

This species has a superficial resemblance to *A. maculicaudaria*, but the antennæ of the males are not pectinated; the arrangement of lines in all the wings above, and spot on secondaries beneath, distinguish it at once.

Selenia adustaria, sp. n.

♂. Primaries pale ochreous-brown, basal and median areas suffused with reddish brown, traversed by two brown lines and a central shade-like band; the first line is curved, and the second is straight from costa to first median branch, from whence it curves gently to inner margin—the straight portion of this line is distinctly edged with the pale ground colour; the outer marginal area is clouded with reddish brown and traversed by a pale waved line. Secondaries pale fuscous-grey, traversed by a pale central band, of which the inner edge only is clearly defined, and a pale waved submarginal line. Fringes whitish, chequered with reddish at the end of the nervules. Under surface pale brown, with transverse markings as above; the costa of primaries is broadly suffused with yellowish, merging into orange towards apex, and the inner marginal area is pale yellowish white; about the middle of outer margin is a large white spot, from the lower edge of which a line runs to inner margin; the dark linear discal spot is bordered outwardly with white. On the secondaries the ground colour is tinged with yellowish; there is a large whitish patch on the abdominal margin near the base, and another about the middle of outer margin; the central band is whitish, as also is the submarginal line towards anal angle; discal spot white, edged internally with brownish. Expanse, 45 mm.

Two male specimens from Yesso (coll. Pryer).

Var. *fusca*.—Smaller; all the wings deeply suffused with fuscous. Under surface yellowish; markings similar to the type, but the white is tinted with violet. Expanse, 32 mm.

One male example from Yesso (coll. Pryer).

This species is allied to *S. lunaria* from Europe, but the outer margins of the wings are not dentated: the var. *fusca* is probably an example of the second brood, and, if so, would be analogous with *S. lunaria* var. *delunaria*.

SELENIA PALLIDARIA, sp. n.

♀. All the wings pale ochreous-brown; primaries have two transverse brown lines—the first is slightly curved, and the second commences on the costa near the apex and terminates just before inner angle. Secondaries with a brown central transverse curved line. Fringes whitish, preceded by a wide brown line. Under surface yellowish sprinkled with brown, with one brownish line. Expanse, 34 mm.

One specimen from Yesso (coll. Pryer).

Allied to *S. adustaria*, but is smaller, the first line is less curved, the second is straighter, and the under surface is not variegated. This species also bears a superficial resemblance to *S. bilunaria* var. *juliaria*.

BISTON PLUMOSARIA, sp. n.

♂. Pale grey, sometimes tinged with brown and sparingly sprinkled with black atoms; first line of primaries starts obliquely outwards, then curves to inner margin—within this line the basal area is brownish; second line is bordered outwardly by a pale brown shade, and runs parallel with outer margin to second median nervule, from whence it is excurved to inner margin, above which it comes in close proximity to the first line; submarginal line whitish, edged at the costa and before the middle with blackish. Secondaries traversed by a black waved central line, which is preceded by a brownish band and followed by a brownish shade; submarginal line whitish, waved, and interrupted. Fringes grey, preceded by a series of black lunules. Under surface pale greyish brown, tinged with fuscous; lines of upper surface faintly reproduced. Antennæ plumose.

♀. Similar to male, but the ground colour is paler, and the antennæ have a few hairs on basal fourth only. Expanse, 56 mm.

A number of specimens from Yokohama (coll. Pryer).

Allied to *B. hirtaria* from Europe.

AMPHIDASYS INVENUSTARIA, sp. n.

Pale silky grey, finely powdered with brown; first line of primaries blackish, within which the basal area is clouded with ochreous-brown; second line serrated, followed by an ochreous-brown band; faint discal spot curved, black; a dusky but ill-defined central shade and submarginal line. Secondaries with similar markings, but the basal line and ochreous-brown markings are absent, and the discal spot is annulated. Fringes preceded by a series of black spots. Under surface paler than above; primaries with a dusky central line; all the wings have a black discal spot. Expanse, ♂ 54—58 mm.; ♀ 68 mm.

Several specimens of each sex (coll. Pryer).

Allied to *A. superans*, Butl., but a smaller and much plainer-looking insect.

OPHTHALMODES MINUTARIA, sp. n.

♀. Pale grey: primaries with some brownish scales at the base; the wavy and slightly oblique first line is black, bordered inwardly with brownish; second line elbowed below costa, followed by a brownish band, which is intersected by a transverse wavy pale line; the pale submarginal wavy line is preceded by a brownish band, and followed by a quadrate brown patch below the whitish apex; there is a whitish cloud on the middle of outer margin, and a smaller one at inner angle; central transverse shade dusky;

this last as well as the other lines and bands are continued on the secondaries, but the white discal spot on these wings is inconspicuous. Fringes grey, preceded by a series of black lunules. Under surface of all the wings whitish, powdered with fuscous; outer third blackish, limited by a slightly darker line; a white spot at apex, and a smaller one on the middle of outer margin of primaries; the outer margin of secondaries is marked with white near the middle, and again towards costa; all the wings have a conspicuous black discal spot. Expanse, 43 mm.

One female example from Loochoo (col. Pryer).

Allied to *O. selenaria*, Hübn., but smaller.

Boarmia fumosaria, sp. n.

Fuliginous. Primaries with an ochreous-brown patch at the base, and another occupies the lower half of the outer marginal area; there are also some spots, of the same colour, on costa towards apex; first line curves from costa to median nervure, then runs obliquely to inner margin; second line curves outwards from the costa, then inwards to first median nervule, from whence it runs straight to inner margin—both are black, as also is the discal spot. Secondaries with a large ochreous-brown patch at anal angle, and black sinuous central line, between which and the base is a black shade-like band; discal spot black. All the wings have an obscure pale submarginal line; just above the middle of this line, on the primaries, is a geminated black spot. Fringes ochreous-brown, chequered with fuliginous. Under surface fuscous, the central area of all the wings is traversed by a blackish band and pale-edged black line; discal spot black. Expanse, ♂ 36—38 mm.; ♀ 40—44 mm.

Several specimens of each sex (coll. Pryer). Yokohama, Oiwake.

In some of the males the ochreous-brown patches are deeply suffused with the ground colour.

Boarmia venustaria, sp. n.

White, with blackish brown markings. Primaries black at the base, enclosing a whitish patch; discal spot annulated, preceded by a dot and surmounted by a spot; beyond is an interrupted line, most distinctly traced by a spot on each nervule—this is followed by some cloud-like spots; outer marginal area blackish brown, interrupted at the middle by the ground colour, and intersected by a wavy line. Secondaries have an annulated discal spot and a ziczac shaded central line; outer margin ornamented as on primaries. Fringes grey, preceded by a series of black spots. Under surface of primaries white; large black discal spot; central line black, interrupted, and some clouds of the same colour on outer margin: secondaries white, with a black discal spot and central line. Head and thorax brownish grey, the latter edged posteriorly with white: abdomen grey, marked with a broad black bar at base. Expanse, 38—42 mm.

Five specimens, including both sexes from Oiwake (coll. Pryer).

A very distinct species, and not closely allied to any *Boarmia* that I am acquainted with.

Boarmia corearia, sp. n.

Primaries brown; median third paler, limited by a blackish curved basal line and a slightly indented outer line; this last is followed by some blackish longitudinal streaks. Secondaries have a black central line, separating the pale brown basal half from the darker brown outer half; discal spot black

but inconspicuous. Fringes brown, preceded by a black dotted line. Under surface pale brown, with black discal spot and central line. Expanse, ♂ 44—48 mm.; ♀ 54 mm.

Four male and one female specimens taken by myself at Gensan, in July.

Allied to *B. grisea*, Butl., but the second line is not angulated.

Boarmia fuscomarginaria, sp. n.

♀. Primaries pale grey, rather darker within the basal angulated blackish line; the outer portion of the wing, beyond the angulated and elbowed black second line, is clouded with brown; pale submarginal line interrupted; discal spot black; central shade ill-defined, distinct only on the costa; a dark brown streak from basal line runs just above submedian nervure to outer margin, and there are two shorter streaks of the same colour from the elbow of second line. Secondaries pale grey; the outer third brown, limited by an undulated black line; submarginal line white and waved; discal spot rather small, black. On the under surface all the wings are pale grey within the blackish central line and fuscous beyond; discal spot black; apex of primaries whitish. Expanse, 47 mm.

One specimen captured by Mr. Smith, at Hakone, in August.

Allied to *B. corearia*, but the lines on the upper surface are differently angulated, and the markings of the under surface distinguish it at once.

Boarmia fuscaria, sp. n.

Primaries dark brown, with some large patches of pale brown on the outer third; first line oblique, black, preceded by a pale brown spot on the costa and some longitudinal streaks of the same colour on the nervures; second line undulated, black, bordered with pale brown. Secondaries pale brown, clouded with darker brown, especially on the outer margin and central area; the central transverse black line is preceded by a dusky shade, bordered outwardly with pale brown. Fringes pale brown, chequered with darker, with an interrupted black line at their base. Under surface brown, outer third of all the wings slightly darker; on the costa of primaries are two dark brown spots placed on a pale brown patch—from the first of these a narrow brown fascia runs to inner margin, and beyond the second a narrow pale brown band limits the darker outer third; these lines are continued on the secondaries. Head and thorax dark brown; abdomen paler brown, with a whitish transverse dorsal stripe at the base, followed by one of dark brown. Expanse, ♂ 50 mm.; ♀ 56—60 mm.

One male and two female specimens (coll. Pryer). Oiwake.

Boarmia ornataria, sp. n.

♂. Greenish grey, sprinkled with yellowish scales; primaries traversed by two ill-defined black lines and a distinct black central band, all commencing as conspicuous black spots on the costa; before the pale and interrupted submarginal line is a yellowish narrow fascia, bordered externally with rusty brown, commencing from the lower end of a black mark on the costa; beyond this the marginal area is variegated with some longitudinal streaks of yellowish and dark brown, continued through the grey fringes; the inner margin has a rusty brown streak; discal spot small, black. Secondaries have a blackish transverse central shade, enclosing a black discal spot, followed by a pale-edged serrated black line; yellowish fascia as on primaries; a series of black lunules precede the fringes. Under surface yellowish-fuscous; the costa of primaries has two black spots, and from these originate

faint transverse lines; the yellowish fascia of upper side is represented by a pale band, and is followed by a dusky one; these lines and bands are continued on the secondaries, which have also a black discal spot. Expanse, 40 mm.

One specimen, from the island of Kiushiu, taken by a native collector.

Var. *inornataria*.—♂. In this form the central band is less distinct, and the yellowish scales and fascia are entirely absent, although the rusty brown border of the latter remains, as also does the rusty brown streak along inner margin of primaries. On the under surface the wings are almost unicolorous, but there are indications of the typical markings.

One specimen (coll. Pryer).

At first sight these two specimens appear to be specifically distinct, but, after a careful examination of the markings and other details, I am convinced that they are only forms of one species.

Boarmia basifuscaria, sp. n.

♂. Primaries pale grey-brown, with the basal third thickly sprinkled with blackish, limited by a black ziczac line and divided by another black line; beyond the middle of the wing is a serrated blackish transverse line outwardly edged with whitish; outer marginal area thickly sprinkled with blackish brown; submarginal line of the ground colour, bordered internally with blackish. Secondaries grey-brown, sprinkled with blackish scales; discal spot and indistinct central line black; submarginal line pale, also indistinct; a wavy black line before the grey-brown fringes. Under surface pale grey-brown, clouded with blackish on the apical third and above inner angle of primaries; all the wings have a black discal spot, but that on secondaries is very minute; central lines not well-defined. Expanse, 44 mm.

Two male specimens. One was in Pryer's collection, and the other I took at Oiwake in October.

Boarmia appositaria, sp. n.

♂. Pale brown: primaries have a small black discal spot and two dark transverse lines—the first is curved, and the second (edged externally with whitish) is oblique, but elbowed and slightly angulated near the costa; between these lines is a nearly straight central shade, the lower end of which meets the second line on inner margin; submarginal line wavy, whitish, bordered internally with fuscous. Secondaries have a black discal spot, a curved and wavy dark central line edged outwardly with whitish; between this line and the base of the wing is a brown transverse shade; submarginal line as on primaries. Under surface pale whity-brown; primaries suffused with fuscous, outer third fuscous, with a patch of whity brown at the apex and another about the middle; secondaries dusted with fuscous; discal spots and transverse lines on all the wings as above. Antennæ pale brown, with blackish pectination. Expanse, 36 mm.

One specimen captured by my native collector at Gensan, in July.

Closely allied to *B. büttneri*, Hedem., but is smaller, and differs from that species in colour, in the form of transverse lines on primaries above, and in the colour of under surface, especially as regards the ornamentation of outer third of

primaries. The antennæ of the two species are very different in coloration.

BOARMIA SINUOSARIA, sp. n.

♂. Pale grey-brown, with a faint violet tinge: the primaries are traversed by two black lines, both increasing in width towards inner margin; the first is curved, slightly indented below median nervure, and broadly bordered inwardly with reddish brown; the second sinuous, and broadly bordered outwardly with reddish brown; just above the middle of the pale submarginal line is a fuscous cloud, from the lower edge of which a line of the same colour runs to inner margin, and beyond this line the outer margin is bordered with fuscous. Secondaries have a black discal spot, preceded by a transverse shade; central line black, bordered outwardly with reddish brown; fuscous cloud, submarginal line and outer border as on primaries. Under surface pale brownish; all the wings have a black discal spot and interrupted central line; apex of primaries pale, broadly bordered inwardly with fuscous. Expanse, 53 mm.

One specimen taken by myself at Ningpo, in April.

BOARMIA FLAVOLINEARIA, sp. n.

♂. Pale silvery grey, sparingly dusted with fuscous. Primaries with three transverse yellow lines, the basal curved and bordered with blackish, the central and submarginal lines follow a course parallel to each other until they approach the inner margin, where they diverge; a black cloud about the centre of the wing, and one or two yellowish markings towards apex. Secondaries clouded towards anal angle, and traversed by a broad yellow band. Under surface pale fuscous; all the wings traversed by two dusky transverse lines. Thorax grey-brown, bordered with yellow. A black line before the fringes, which are of the ground colour. Expanse, 52 mm.

Two male specimens (coll. Pryer).

TEPHROSIA COSTIPUNCTARIA, sp. n.

Primaries pale grey; basal area and clouds on the outer third brownish grey; there are four equidistant black spots on the costa, from which lines or bands proceed across the wings to inner margin; the central band and second line approximate below the middle of the wing; the discal spot is black, and from this there is a blackish longitudinal bar extending to a pale roundish patch on outer margin. Secondaries grey, thickly mottled with brownish, and traversed by three whitish-edged darker lines. Fringes grey, chequered with darker, and preceded by a series of black lunules. Under surface fuscous, with some paler clouds on the primaries; discal spot and central line black, the latter edged externally with paler. Expanse, ♂ 34 mm.; ♀ 36 mm,

Three examples of each sex (coll. Pryer). Oiwake.

This species is most nearly allied to *T. luridata* and *T. punctularia* from Europe, but is not likely to be confused with either.

TEPHROSIA PARVULARIA, sp. n.

♂. Grey-brown. Primaries traversed by two black transverse lines; the first is curved, angulated below costa, and limits the dark brown basal area; the second is angulated; between these lines there is a black discal spot and transverse central shade; the last followed by a dark brown cloud above the inner margin, and an oblique band or cloud of the same colour is projected from about the middle of second line to outer margin; the pale wavy submarginal line has an interrupted internal edging of dark brown, which is

most distinct on the costa. Secondaries have a black angulated transverse central line, preceded by a brownish shade; pale submarginal line bordered internally with dark brown; discal spot black. Fringes grey, chequered with brown. Under surface of basal two-thirds of primaries whitish, traversed by a blackish central shade, in which is placed the discal spot; outer third suffused with fuliginous, traversed by the pale submarginal line which is edged internally with blackish; secondaries whitish, suffused with fuliginous on outer margin, the transverse line and shade as above.

♀. Similar to the male, but the oblique dark brown band is united with the cloud on inner margin, and all the other markings are more distinct. Expanse, ♂ 30 mm.; ♀ 26 mm.

Two specimens of each sex (coll. Pryer). Gifu.

The markings on under surface are not always clearly defined.

Allied to *T. costipunctaria*, but there are no distinct black spots on costa or pale blotch on outer margin; the second line is more sinuous, and the under surface is very differently marked.

Apocheima albofasciaria, sp. n.

♂. Pale brown, discal area tinged with ochreous; primaries traversed by two parallel curved lines, the outer one broadly bordered externally with white; towards apex is a broad reddish patch, from the lower edge of which a dark shade proceeds to the reddish inner margin. Secondaries whitish at the base; central fascia white, bordered on each side with dark brown, and beyond is an interrupted angulated white line. Fringes pale grey, variegated with darker at the tips of the nervules. Under surface as above, but rather more clouded with brownish. Expanse, 44 mm.

Three male specimens (coll. Pryer).

This species is closely allied to *Apocheima flabellaria*, Heeg.

Oporabia japonaria, sp. n.

♂. Primaries grey; basal line black, enclosed space dark grey; inner line black, curved; outer line not clearly defined, the space between more or less filled up with dark grey; pale submarginal line edged with dark grey; the nervules are marked with black, the bases of the median nervules conspicuously so. Secondaries pale fuscous-grey, with darker transverse line. Under surface whitish, without distinct markings. Expanse, 30—36 mm.

A long and variable series in Pryer's collection (No. 513). Yokohama.

This species varies considerably in the tone of ground colour, and in the definition and intensity of the darker markings, especially those of the central area.

A semi-apterous female specimen, also in Pryer's collection, appears to be referable to this species. It has all the characteristic markings of the male.

Lozogramma (?) bilineata.

Pale reddish brown, sprinkled with darker: the basal two-thirds of primaries, and half of secondaries, a shade darker in colour; these areas are limited on both wings by a brown line, bordered externally with whitish, and the primaries have, in addition, a black discal spot and an inner brown transverse line edged internally with whitish. Fringes agree in tint with that

of basal area. Under surface pale brown, powdered with darker, the dividing line of upper surface faintly reproduced. Expanse, 32—36 mm.

Several specimens (coll. Pryer). Gifu.

PHASIANE INCERTARIA, sp. n.

♂. Primaries pale brown; first line dusky, slightly curved near costa, and angulated above inner margin; second line pale, wavy, and bordered with dusky, commences below a large, pale, almost round patch before apex; this line is followed by an oblique fuscous-brown transverse streak from apex to inner margin; from the pale apical patch a broad irregular purplish brown band traverses the wing to the inner margin, where it occupies the space between first line and the oblique fuscous-brown streak; discal spot black. Basal half of secondaries purplish brown, limited by a wavy, pale-edged, dusky transverse line, and contains a black discal spot; outer half pale brown, traversed by a darker shade; discal spot black. Under surface pale brown; on the primaries the discal spot, pale apical patch and oblique fuscous streak are reproduced; and on secondaries the discal spot and central transverse line, but the last is very indistinct.

♀. Similar to the male in colour, but, with the exception of the pale apical patch, which is very conspicuous, all the markings are very faint on all the wings above, whilst beneath the wings are devoid of all markings but the discal spot and a faint indication of the apical patch. Expanse, ♂ 38 mm.; ♀ 38—42 mm.

Several specimens (coll. Pryer). Gifu. ? Yokohama.

This seems to be a variable species, and I have selected as types examples of each sex with the markings well-defined. One of the females is of a uniform darkish brown, with the apical patch showing slightly paler, and the wings are traversed by a darker line, central on the secondaries, and occupying the place of the pale line of the type on the primaries. Two specimens from Kiushiu, collected by a native, are, I think, referable to this species, but, as they present certain characters not found in my Gifu specimens, I have determined to describe them as the representatives of a local race.

Var. *suffusa*.—The purple-brown of each wing is replaced by deep brown; the apical patch of primaries contains an oblique brown dash, and the limiting line of secondaries is straighter and not waved. All these differences are well exhibited on the under surface. Expanse, ♂ 33 mm.; ♀ 36 mm.

Two specimens. Kiushiu.

PHASIANE ALBIFRONTARIA, sp. n.

♂. Pale cinnamon-brown, tinged with reddish, especially at the base, on outer fourth including fringes of primaries, and central third and fringes of secondaries; there is a white discal spot encircled with blackish on each wing; on the middle of outer margin of the primaries is a large ashy-grey oval spot, with a smaller one just above—both are bordered with blackish, and a line of the same colour runs from upper spot to apex, and from the lower spot to inner margin. Front of head white. Under surface whitish, dusted with brown, and broadly tinged with cinnamon along costa of primaries; each wing has a black discal spot.

♀. Similar to the male, but the spots on outer margin of primaries are

hardly paler than the rest of the wing, and the discal ocelli are not very distinct. Expanse, ♂ 40 mm.; ♀ 45 mm.

Several specimens from Gifu (coll. Pryer).

Fidonia lutearia, sp. n.

Pale yellow, spotted and banded with blackish. Primaries have three spots at the base, followed by an interrupted oblique transverse line; a large discal spot precedes a fairly broad central band, which is followed by a series of spots forming a transverse waved line; the outer margin is broadly bordered with blackish, transversely streaked with yellow. Secondaries have a broadish transverse band on each side of the large discal spot, and the outer margin has a broad interrupted border, transversely streaked with yellow. Fringes yellow, chequered with black. Head yellow in front; thorax blackish, with yellow collar and markings on the patagia. Under surface as above, but the markings are paler. Expanse, 17—19 mm.

Three specimens in Pryer's collection, from Oiwake (No. 472). In one of the males the markings are more or less confluent, thus giving the insect a blackish coloration, with fine interrupted transverse yellow lines and yellow patch at apex of primaries.

Halia fuscaria, sp. n.

Grey, powdered with fuscous; the primaries are traversed by three, and the secondaries by two, fuscous-brown transverse lines; the outer in each case double, enclosing a paler space, and followed by a whitish line expanding towards costa of primaries; a black discal spot on secondaries. Fringes brownish grey, those of primaries chequered with fuscous-brown. Under surface as above, but the costa of primaries and space enclosed by double line tinged with ochreous. Expanse, 28—30 mm.

Three examples of each sex (coll. Pryer). Oiwake, Yokohama.

Halia corearia, sp. n.

♂. Ochreous-yellow, suffused with brownish: the primaries have a basal line, a rather broad central band, and outer marginal border, dark purplish brown; the central band is continued across the secondaries, and these wings have a dark purplish-brown interrupted antemarginal band. Under surface yellowish, sparingly speckled with purplish brown; transverse bands as above. Expanse, 30 mm.

The female appears to be similar to the male, but the only specimen I have of this sex is rather worn. Of the three other males one agrees with the specimen described, but it is in poor condition; two are quite perfect, and vary from the type in opposite directions: thus, one is much paler, and the central band of the wings is intersected by a transverse pale line; the other is of a uniform brown colour above, except towards apex, where the ochreous-yellow of the type asserts itself. There is but little difference, however, on the under surface.

Three male specimens taken by myself in June, and one example of each sex in July, at Gensan. The last are the worn specimens adverted to.

ARICHANNA ALBOMACULARIA, sp. n.

Primaries olivaceous-green, traversed by four black wavy lines; the first two are near together, and, as the enclosed space is suffused with blackish, form a transverse fascia, edged inwardly with whitish; the third is just beyond the dusky discal spot; the fourth is bordered with blackish below costa, and again towards inner margin; a large white apical spot and a smaller white spot towards inner angle. Secondaries greyish white, tinged with ochreous, discal spot, and two dingy interrupted transverse lines. Fringes pale brown, tessellated with blackish on the primaries. Under surface pale ochreous-brown, heavily sprinkled with fuscous except along inner marginal area of primaries, which is glassy at the apex; there are three distinct black spots on secondaries, forming a triangle, and one black discal spot on primaries. Expanse, 50 mm.

Seven specimens (two males, five females, coll. Pryer). Oiwake.

Allied to *A. letrica*, Butl., but distinguished by the large white spots on primaries.

ARICHANNA PRYERARIA, sp. n.

♀. Primaries obscure ochreous-brown, mottled and clouded with darker brown and blackish; the latter colour forms two broad transverse bands, one at the base interrrupted by the ochreous veins, and one beyond the middle of the wing, which is bordered outwardly with white and interrupted by the venation, but distinctly broken by the second and third median nervules; the space between these nervules, at this point, is of the ground colour, and the veins themselves are ochreous; there is an oblique ochreous apical dash, and a pale submarginal line inwardly bordered with black on each side of the apical dash; fringes ochreous, chequered with brown. Secondaries ochreous-grey, darker beyond the outer dusky transverse line; fringes ochreous, faintly chequered with dark grey. Under surface whitish ochreous, powdered with fuscous on the primaries and brown on the secondaries; the former have an ill-defined discal spot and central transverse line, and the latter two indistinct transverse lines, a black discal spot, and one immediately below near anal angle. Expanse, 43 mm.

One specimen (coll. Pryer). Oiwake.

Allied to *Arichanna furcifera*, Moore.

CIDARIA PALLIDARIA, sp. n.

Primaries pale stramineous, traversed by two transverse brown lines; the first is slightly oblique and angulated below costa; the second commences as a spot on the costa, below which it runs outwards, and then, turning sharply downwards, proceeds in a sinuous course to the inner margin; there is a large brownish patch near inner angle. Secondaries whitish, sprinkled with dark scales and traversed by a brownish central line. Under surface whitish, primaries tinged with fuscous towards base; all the wings have a black discal spot and central transverse line. Expanse, 30 mm.

Two male specimens (coll. Pryer, No. 486), and one male taken by my native collector at Kiushiu.

Frigisan; Nikko (Pryer); Kiushiu (native collector).

CIDARIA PRATTIARIA, sp. n.

♂. Yellowish, dusted with ochreous-brown. Primaries have the veins tinged with rust-colour, and are traversed by three brown transverse lines;

there are two pale patches—one in the first median interspace near the central line, the other in the second median interspace just beyond the outer line; the last pale patch is enclosed on three sides by a dark grey-brown cloud. Secondaries traversed by two central transverse brownish lines. Fringes yellowish, with some brownish patches at the tips of the nervules. Under surface similar to above but paler.

♀. The primaries are less powdered with ochreous-brown, and the grey-brown cloud is larger. Expanse, ♂ 34—41 mm.; ♀ 32—50 mm.

Several specimens (coll. Pryer). Oiwake.

A most variable species, both as regards coloration as well as size. Two of the largest males are almost uniform pale yellow, and, although the markings are traceable, they are very faint on the upper surface, but beneath they are almost as distinct as in the type: for this form I propose the name of *unicoloraria*.

Cidaria parvaria, sp. n.

♂. Primaries chocolate-brown: basal two-thirds limited by an angulated double white line, and intersected by two fine white lines, the first of which is oblique and the second double; from the angle of the bordering line a longitudinal white dash proceeds to outer margin; submarginal line is white and wavy. Secondaries fuscous, with a pale central transverse line. Fringes grey. Under surface fuscous; primaries with central, and secondaries with central and submarginal, whitish lines. Expanse, 20 mm.

There were two specimens in Pryer's collection, probably from Yokohama.

Cidaria ? debilitata, sp. n.

♀. Primaries pale whity-brown, traversed by two dusky dotted transverse lines; the first is slightly curved to the median nervure, and from thence proceeds straight to the inner margin; the second commences parallel with outer margin, then curves gently inwards to the first median nervule, from whence it runs straight to inner margin; discal spot black. Secondaries whitish, glossy, and without distinct markings. Under surface whitish; all the wings have a black discal spot, and a black-dotted transverse line parallel with outer margin. Expanse, 40 mm.

One specimen (coll. Pryer). Gifu.

Anticlea ? ningpoaria, sp. n.

♂. Primaries dark brown, traversed by two black lines which approximate below the middle—between the outer line and apex is a black colon-mark on the costa; beyond the central line there is a suffused ochreous band; the outer margin is broadly suffused with fuscous, intersected by a pale submarginal line. Secondaries brown, suffused with fuscous and traversed by blackish lines. Discal spot present on all the wings, but not very distinct. Fringes dark grey-brown. Under surface grey, tinged with fuscous; all the wings have a black discal spot and two transverse black central lines. Expanse, 28 mm.

Two male specimens from Ningpo; one taken by myself in April, and one by my native collector in June.

Anticlea grataria, sp. n.

Primaries pale grey, with a reddish brown stripe along the base of the costa; from the outer end of this a blackish fascia descends to inner margin; beyond the middle of the wing are two fine lines originating in the lower edge

of a large blackish spot on the costa; the first of these is indented and waved, and the second serrated; the outer third of the wing is suffused with pale reddish brown, and the pale grey submarginal line traverses a patch of the same colour on the outer margin; discal spot black. Secondaries pale grey, shaded with fuscous, and traversed by two central parallel dusky lines. Fringes grey-brown. Under surface fuscous-grey, with black discal spot and indistinct central lines on all the wings. Expanse, ♂ 44 mm.; ♀ 46 mm.

I took this species at Nikko in September, and at Oiwake in October; there were several specimens in Pryer's collection.

MELANTHIA LATIFASCIARIA, sp. n.

♂. Primaries black, with an angulated and curved white line at the base, and a very broad white central fascia, in which is placed a black oblong spot on inner margin and two abbreviated bands from costa—the outermost of these is sometimes broken up, and forms a transverse series of black spots; the external edge of the fascia is bidentated. Secondaries black, with a fairly broad central band, from the inner edge of which a narrower white band proceeds in the direction of the base of the wing, but suddenly turns towards a white spot on the abdominal margin; there is also an outward projection from this band. Fringes white. Under surface same as above. Front of head, collar and patagia yellow, the latter spotted with black; abdomen yellow, spotted with black. Expanse, 44 mm.

Three specimens from Oiwake (coll. Pryer); also received from Mr. Manley, of Yokohama.

This species bears a superficial resemblance to *Melanippe hastata*.

SCOTOSIA RHAMNATA, *var.* JAPANARIA.

The Japanese form of *S. rhamnata*, ♂, differs from the type in its larger size and pale grey-brown coloration; the transverse lines are identical in number and form, but the space between the two central angulated lines is not darker. On the under surface the difference of colour is not great, and the markings are very typical. Expanse, 40 mm.

Two male specimens (coll. Pryer). Oiwake.

SCOTOSIA PUNCTIMARGINARIA, sp. n.

Umber-brown. Primaries traversed by a number of fine wavy darker transverse lines; central fascia fuliginous-brown, diffused towards costa, the inner edge defined by a serrated and indented black line; the outer edge is also defined just below costa, by a black wavy band crossing the wing almost parallel with outer margin; this margin is broadly bordered with fuliginous-brown, in which is the pale submarginal line and some white points on the nervules. Secondaries have a blackish central transverse line, preceded by several narrow dusky bands, and followed by a broad band on external margin, with submarginal line and spots as on primaries. Under surface grey-brown; all the wings have a dusky central transverse line. Expanse, 52—54 mm.

A few specimens of each sex (coll. Pryer). Yesso; ? Yokohama. Mr. Smith captured a female example at Hakone, in August.

SCOTOSIA UMBRARIA, sp. n.

♂. Primaries pale brown, shaded with darker oblique lines; an oblique dark brown cloud-like fascia traverses the centre of the wing from the inner margin, near the base, to apex the costa is marked with small patches of

dark brown, and the veins are dotted with black; the pale wavy submarginal line has a broad internal brown shade from just below the middle to inner margin. Secondaries pale brown, shaded by a number of darker wavy lines; three of these are blackish, and are placed as follows:—one at the base, one before the middle of the wing, and one beyond the middle. Fringes shining brown, preceded by a fine black line and a series of distinct black spots. Under surface pale brown, with a black discal spot on each wing; the primaries have the oblique cloud of upper surface indicated by a blackish shade, limited outwardly by a black line: the secondaries have several darker transverse lines beyond the discal spot. Expanse, 44 mm.

One specimen taken by myself at Nagahama, in July.

Allied to *S. rhamnata* from Europe, but at once distinguished from that species by its larger size and the oblique central cloud-like fascia.

LOBOPHORA GRISEARIA, sp. n.

Primaries whitish grey; the basal area is grey-brown, limited by a black transverse line; the central area is traversed by a broad grey-brown fascia, transversely intersected by a band of the ground colour, and limited internally by a black line and externally by a series of black dots followed by white ones; the apical portion of outer margin is broadly bordered with grey-brown; the nervules on this part of the wing are fuscous-brown, each nervule with a white spot; fringes whitish grey, tessellated with fuscous, and there is a V-shaped mark at their base in each interspace. Secondaries whitish grey, with an obscure dingy transverse line beyond the centre. Under surface whitish grey, tinged with fuscous, the markings of above faintly indicated. Expanse, 32 mm.

Five male specimens and three females (coll. Pryer). ?Yokohama.

Allied to *L. carpinata*, Bork., from Europe.

LOBOPHORA CONSOBRINARIA, sp. n.

Very similar to *L. viretata*, Hübn., but the primaries have some black spots at the base; the central fascia is narrower, and transversely intersected by a distinct pale band; the fascia also differs in outline from that of *viretata*, in the following manner:—the inner edge is very slightly curved, and not angulated in the least before the inner margin; the outer edge is less bowed. A further distinctive character is found in the whitish secondaries of this species, which are without transverse lines either above or beneath. Expanse, 28 mm.

One male specimen (coll. Pryer). Gifu.

The general character of the fascia is more like that of the female than the male of *viretata*, and for this reason I have named the species *consobrinaria*.

LOBOPHORA BELLARIA, sp. n.

♂. Basal half of primaries olivaceous-yellow, traversed by a dark grey-brown fascia, and limited by a line of the same colour; central fascia whitish, contracted below the middle, and containing a black spot in its upper portion; the outer third of the wing is brownish-white, mottled with darker, especially towards apex; between the black nervules there are patches of ochreous-yellow. Secondaries are tinged with fuscous, and have an obscure central transverse line and discal spot. Under surface whitish, shaded with fuscous; the primaries have a dusky transverse central band, edged with white on costa, and the secondaries have the central line more distinct than above.

♀. Similar to the male, but more clouded with brownish-white, and the central fascia of primaries is suffused with fuscous, except on the inner margin, where it is distinctly white. Expanse, ♂ 25 mm.; ♀ 26 mm.

Two specimens, from Gifu and Yokohama, in Pryer's collection.

Not closely allied to any *Lobophora* that I am acquainted with.

LOBOPHORA OBSCURARIA, sp. n.

♂. Primaries fuliginous-brown, with a broad, slightly darker, central fascia; the inner edge of this fascia is bidentated and the outer edge elbowed; there are two short longitudinal black bars on the inner margin—one at the termination of the fascia, and the other nearer the base of the wing. Secondaries slightly paler than primaries. Under surface fuliginous-brown. All the wings have a black discal spot, but there are no other markings. Expanse, 34 mm.

Several male specimens (coll. Pryer). Loochoo; Yokohama.

Allied to *L. sabinata*, H. G., but the outline of the central fascia of primaries is very different.

COLLIX LENTIGINOSARIA, sp. n.

Pale drab, with a faint reddish tinge. Primaries traversed by a transverse line, near the base, composed of brownish spots; another similar line near, and almost parallel with, the outer margin; beyond this last are some brownish spots towards apex, and a brownish-cloud at inner angle; there are indications of a brownish central shade on inner margin. Secondaries pale drab, strongly tinged with reddish, especially towards outer margin; these wings have a dusky central shade and series of spots parallel with outer margin. Fringes of primaries dark brown below apex and at inner angle; those of secondaries are reddish. Under surface of primaries similar to above, but more decidedly tinged with reddish; secondaries pale whity-brown, freckled with brownish on basal area, and traversed by two transverse dark brownish lines: fringes pale drab, brownish at the base and tips of nervules. Expanse, 28—32 mm.

I obtained specimens of each sex at Hakodate, in August, and there were some examples in Pryer's collection.

Hakodate (Leech); ? Yokohama; Gifu (Pryer).

ACIDALIA PLUMBEARIA, sp. n.

Leaden grey. Primaries traversed by three blackish transverse lines; that nearest the base is not well-defined; the second and third are sinuous and almost parallel. Fringes silky grey. Secondaries traversed by two parallel wavy blackish lines. On the under surface the basal line of primaries is not represented, but the other lines are the same as above. Expanse, ♂ 26 mm.; ♀ 28 mm.

I have a pair of this species taken by myself—the male in Satsuma in May, and the female at Nagasaki in June.

NADAGRA PUNCTILINEARIA, sp. n.

Closely allied to *N. flaviceps*, Butl., with which it agrees in colour, but is powdered with black scales. Head, collar and costa of primaries are not marked with ochreous; the transverse line of all the wings is nearer the outer margin, and is formed of black spots connected by a thin whitish line; that on the secondaries is curved, instead of being straight as in *N. flaviceps*. On the under surface the entire area of the wings is sprinkled with black, and the transverse line is as above. Expanse, 32 mm.

I captured some specimens at Nagasaki in May, and my native collector obtained examples in Kiushiu. Both sexes are represented.

PRIONIA ROSEARIA, sp. n.

Pale brown, suffused with rosy. Primaries have two central, oblique, transverse ochreous lines, the space between lines slightly darker; an ochreous cloud on costa before apex. Secondaries have a short transverse ochreous line extending from abdominal margin to near the middle of the wing. Under surface rather darker; primaries without transverse line, more deeply suffused, costa bordered with ochreous from base to a cloud of same colour before apex. Fringes rosy. Expanse, 32—34 mm.

I obtained six specimens, including both sexes, at Ningpo, in April.

The first of the central lines is not always clearly defined in some specimens.

TACPARIA PRYERARIA, sp. n.

Brown, suffused with purplish. Primaries traversed by three darker transverse lines; the space between central and outer lines is pale brown below the costa. Secondaries crossed by two transverse lines, enclosed space sometimes paler. Fringes preceded by a pale line, which is inwardly bordered with dark brown. Under surface yellowish, sprinkled with greyish brown; outer margin of primaries broadly suffused with brownish; there is an inconspicuous discal spot on each wing. Expanse ♂ 40 mm.; ♀ 37 mm.

Three male and two female specimens from Gifu (coll. Pryer).

CORYMICA GENSANARIA, sp. n.

♀. Pale stramineous, spotted and marked with purple-brown; there is a cloud of purple-brown at apex of primaries; a series of three spots represent the inner line; the central line is double; the outer line, composed of a series of dots, is followed by two large spots placed colon-like on the inner margin. Secondaries have a fairly broad central band and border to outer margin, with an ill-defined transverse series of spots between them. Under surface as above, but the disc of primaries is more clouded with purple-brown. Expanse, 24 mm.

One female specimen taken by my native collector, at Gensan, in July.

KRANANDA LATIMARGINARIA, sp. n.

Primaries pale brown, broadly tinged with ochreous along costal area; basal line brown, acutely angulated; beyond the middle of the wing there is a pale line parallel with outer margin—this is edged externally with fuscous, and followed by a dark brown border, the outer limit of which is only well-defined towards the pale apex; a longitudinal dusky shade on central area from the angle of basal line to outer line; a large black spot near inner angle and smaller one above. Secondaries excavated at the outer angle, pale brown, traversed by a dusky central line; beyond the middle of the wing there is a pale line, almost parallel with the outer margin, bordered externally with fuscous and brownish; all the wings have a black discal spot. Under surface same as above, but the brownish borders of outer lines are better defined. Expanse, ♂ 40—44 mm.; ♀ 47 mm.

Two male specimens and one female (coll. Pryer).

My native collector captured one male example at Nikko and another at Gensan, both in the month of July.

NEW SPECIES OF RHOPALOCERA FROM WESTERN CHINA.

By J. H. Leech, B.A., F.L.S., &c.

Ypthima iris, sp. n.

Primaries grey-brown; a large oval yellowish ocellus towards apex, centred and ringed with black, contains two bluish pupils placed obliquely, the lower being nearest the outer margin; outer third of the wing paler, bounded on each side by dark curved lines, which start from near the costa and approach each other just above inner margin; marginal line blackish. Secondaries have a round ocellus above the anal angle, coloured as that on primaries, but with only one pupil; marginal and wavy submarginal lines blackish. Under surface light brown, freckled with whitish throughout; markings as above, but of a darker shade of brown; on the secondaries there are two small additional ocelli, one at the outer and the other at the anal angle; there is also a darker wavy central line. Female like the male, but the ocelli are larger, and there is a small additional one at anal angle; the ground colour is paler, and the markings are rather more pronounced. Expanse, ♂ 54 mm., ♀ 55 mm.

A large number of both sexes taken at Wau-ssu-kou and Chow-pin-sa in May, June, and July. In this species the ocelli on the secondaries vary in size, and in number range from 1 to 5.

Callerebia phyllis, sp. n.

♂. Allied to *C. pratorum*, Oberth., but the apical ocellus is oval and oblique, the white pupils are also placed obliquely, the lower one being nearest to the outer margin; on the secondaries there is no anal ocellus: on the under surface the costa and outer margin of primaries are bordered with slatey grey; the secondaries are of the same colour, with a darker central band, which is serrated on its outer edge, and clouded externally with light brownish; there are no ocelli, but a submarginal series of small whitish dots. Expanse, 55 mm.

Two specimens, taken by a native collector at How-kow at a great elevation.

Melanargia leda, sp. n.

Allied to *M. halimede*, Mén., from Amurland, with which it agrees very well in colour and markings of upper surface, but it is rather smaller in size, and on the upper surface the basal area of secondaries is clouded with black. The markings of the under surface are blackish grey, and very similar in character to those of *M. lachesis*, from Europe. Expanse, 54 mm.

A number of specimens from How-kow, in Tibet, where they were captured in July and August at an elevation of 10,000 feet.

The broad black inner margin of primaries and *lachesis*-like markings of the under surface will readily separate this species from any other described *Melanargia*. There is considerable variation in the width of the black transverse markings.

Pieris davidis, *Oberth.*, Etud. d'Entom., vol. ii., p. 18, pl. 1, fig. 5, ♂.

I have received one specimen of the female of this species, which I believe has not hitherto been described.

♀. The primaries are almost entirely black, suffused about the disc with greyish scales; there is a series of white blotches along the outer margin,

and also white longitudinal patches at the extremity of the cell, the first being situated near the costa; in other respects the female does not differ from the male, except in size. Expanse, 65 mm.

This example of the female was taken with male specimens at Ta-chien-lu in June, at an elevation of over 8000 feet.

PIERIS DAVIDIS, *Oberth.*, var. VENATA, var. nov.

This form, which seems at first sight to be a distinct species, occurs with, and is more abundant than, the type in various localities at high elevations.

The male agrees well with the type on the upper surface, but the female is not so much suffused with black; on the under side of both sexes the secondaries and tips of primaries are rich lemon-yellow, and the veins are broadly bordered with black; the fringes are also black. Expanse, ♂ 59 mm., ♀ 55 mm.

THECLA PATRIUS, sp. n.

Resembles *T. w-album* from Europe, but the tails are longer in the males. The principal distinctions, however, are found in the markings of the under surface, where the transverse lines are more oblique; that on the secondaries starts from beyond the middle of costa; the orange band is broader, and is followed by two large velvety black spots; the orange band is preceded and followed by a metallic bluish line; the primaries have a pale submarginal line, which in the male merges into orange towards inner angle. Expanse, 33 mm.

Several specimens, including both sexes, from Pu-tsu-fong, taken at an elevation of about 10,000 feet in June and July.

LYCÆNA ION, sp. n.

Agrees almost exactly with *L. fischeri*, Eversm., on the upper surface, but the under surface of secondaries presents the following differences: the ground colour is much whiter; there are three or four patches of grey near the base; the central band is uninterrupted, grey in colour, contains a whitish spot, and has a spur from its outer edge to a grey band on the outer margin; this latter is intersected by a whitish transverse line; there are no orange markings on the outer margin, but there are some silvery scales and a small black spot above anal angle. Expanse, 28—30 mm.

Specimens were taken at Wa-Shan, Wa-ssu-kou, Chow-pin-sa, Chia-kou-ho, and Ta-chien-lu, in June and July, at elevations ranging from 5000 to 8300 feet.

EUDAMUS SIMPLEX, sp. n.

Both sexes may be compared with *E. bifasciatus*, Brem. (Oberthür, Etud. d'Entom., vol. xi., pl. vi., fig. 47). The wings are much shorter, broader, and rounder in contour; the ground colour is dark shining brown; the apical spots are confluent, forming a dash. On the under surface the apex of primaries, and outer margins of all the wings, are clouded with bluish grey, and the dark transverse bands of the secondaries are not bordered with paler. The fringes also are not chequered. Expanse, ♂ 45, ♀ 48 mm.

A large number of specimens from Ta-chien-lu, Pu-tsu-fong, and Chow-pin-sa, taken in May and June, and at Ni-tou and Wa-ssu-kou in July and August.

EUDAMUS PROXIMUS, sp. n.

♂. Closely allied to *E. nepos*, Oberthür (Etud. d'Entom., vol. xi., p. 26, pl. vi., fig. 49), but can be easily separated by the ground colour, which is

very dark shining brown, instead of being tinged with olive; the wings are rounder, and the outer margins of secondaries are not so indented; the position of the two apical spots is also different. The colouring of the under surface more nearly resembles that of *E. germanus*, Oberth., L. c., fig. 48, but the apical spots of primaries and the position of the dark bands on secondaries at once distinguish it from that species. Expanse, 48 mm.

Taken at Pu-tsu-fong in June.

SYRICHTHUS OBERTHÜRI, sp. n.

Closely allied to *Syrichthus maculatus*, Brem., with which it agrees almost exactly in colour and ornamentation of upper surface, but the outer macular band is less angulated. The under surface of secondaries is olive-green or grey, with white basal and central bands formed of connected spots, which in the central series are of various shapes, one of these below costa is bar-shaped; between the bands the costa is white, with a round spot below of the same colour; the submarginal line is also white, waved, and interrupted. Expanse, 33—35 mm.

Several specimens from Wa-ssu-kou, where they were taken at an elevation of 5000 feet in May and June.

PAMPHILA PULCHRA, sp. n.

♂. Fuscous. Primaries have some yellowish scales on the basal and outer marginal areas, and are traversed by two pale yellow macular bands; the initial spot of outer band is somewhat lunular, and is placed inwards on the costa. The secondaries have three pale yellow spots on the central area, but the first of these lies towards outer angle; there is a smaller yellow spot towards the base of the wing, and some indications of a pale yellow submarginal band. The under surface is brownish; primaries have the bands as above, but the space between them is clouded with blackish, and the basal half of the wing is washed with pale ochreous; secondaries are suffused with pale ochreous along the costal area, and have a silvery longitudinal central streak, which is interrupted about the middle, and its outer portion expands into an irregular shaped blotch; there is a round silvery spot above the blotch, another below it, and a short club-shaped streak before the abdominal margin; a conspicuous fuscous spot lies above the central streak, and there are three or four silvery spots towards anal angle, representing a submarginal band; marginal line silvery grey. Fringes of primaries fuscous, faintly chequered with grey-brown, and preceded by a black line; those of the secondaries are grey-brown, paler towards extremities. Expanse, 29 mm.

In the ornamentation of the under surface of secondaries this species is something like *Pamphila avanti*, de Nicéville,* but in other respects it is very different, and quite unlike any other species with which I am acquainted.

Several specimens from Ta-chein-lu and Wa-ssu-kou, where they occurred in June and July.

CARTEROCEPHALUS GEMMATUS, sp. n.

Allied to *Carterocephalus nivcomaculatus*, Oberth. (Etud. d'Entom. xi., p. 27, pl. ii., fig. 8), but on the upper surface the primaries have a white spot at the base of the cell, another towards outer end of cell, and four smaller ones beyond, forming, in conjunction with the four apical spots, an interrupted band; the secondaries have one large white central spot, and in some speci-

* Journ. Soc. Beng., LV., p. 255, pl. xi., fig. 10.

mens there is a smaller spot below it. The under surface of primaries is dashed with silvery-white along the base of the costa, and, in addition to the spots as above, there is a silvery-white apical cloud; the secondaries have two broad silvery-white bands from costa to submedian nervule, which is dashed with the same colour, as also is the base of costa. Expanse, ♂ 32 mm., ♀ 30 mm.

I have specimens from Ta-chein-lu, Pu-tsu-fong, and Wa-ssu-kou. The species occurs at various elevations, ranging from 5000 feet at Wa-ssu-kou up to 8300 feet at Ta-chien-lu.

Taractrocera trimacula, sp. n.

♂. Fuliginous; the primaries with three large yellow spots, one in the cell and two beyond, and a short yellow dash along the subcostal nervure; the secondaries have a yellow central spot. Fringes of all the wings yellow, narrowly chequered with black at the ends of the veins. On the under surface the markings are much as above, but the streak on subcostal nervure extends from base to the upper yellow spot, and there is a yellow subapical dash; the secondaries are yellow, with a large black spot about middle of costa, and some blackish markings on the centre of the wing, and along the abdominal and outer margins. Expanse, 30 mm.

One male specimen from Wa-ssu-kou, captured in June.

Taractrocera lyde, sp. n.

Brownish black, markings rich yellow, arranged as follows,—a large spot at the extremity of the cell, with a dot above it, an interrupted band, consisting of four spots towards apex, below which are two (sometimes three) other spots about the centre of the wing; these spots would be confluent if it were not for the dark neuration; on the secondaries there is a discal spot, followed by a central band formed of yellow spots. Fringes greyish white, chequered with black. Under surface of primaries as above, but sprinkled along the costa with yellowish scales; there is also a row of spots on outer margin from the apex. Secondaries thickly sprinkled with yellow scales; in addition to the markings of the upper surface there are two basal spots, and also a series of spots along the outer margin. The female agrees with the male, but on the under surface the secondaries and costal area of primaries are suffused with orange, the markings being of a paler shade. Expanse, ♂ 25 mm., ♀ 30 mm.

Occurs in June and July at Moupin, Wa-ssu-kou, and Chia-kou-ho.

Nisoniades pelias, sp. n.

Primaries grey, the basal half thickly, and the outer half sparingly, sprinkled with blackish; there are three transverse black lines, the first is not well defined, the second is slightly curved and indented, and the third is serrated; the space between the 2nd and 3rd lines appears to be darker, and there is a white spot on the costa. Secondaries fuliginous, with faint indications of a pale transverse line beyond the centre of the wing. Under surface fuliginous; the primaries have a short white macular band from the the costa, and the apices are tinged with grey; transverse band on secondaries indicated as above. Fringes dark grey, paler towards extremities. Expanse, ♂ 36 mm., ♀ 40 mm.

Not uncommon at Ta-chein-lu and Wa-ssu-kou in the months of June and July.

Agrees with *N. marloyi*, Boisd., in size and abbreviated fascia

on the under surface of primaries, but on the upper surface the markings are not very dissimilar to those of *N. tages*, L.

CELÆNORRHINUS CONSANGUINEA, sp. n.

Dark brown, sprinkled with ochreous scales, especially on the basal third of primaries; these wings have a central series of five diaphanous spots and five towards apex; there is also a spot midway between central series and base of wing. The spots on secondaries are pale orange, and comprise a large one in the centre of the wing, three between it and the abdominal margin, and one, or sometimes two, towards the base of the wing, beyond there is a transverse series of seven or eight, but that nearest the costa is sometimes absent. On the under side of primaries there are two extra spots in the submedian interspace; on the secondaries all the spots are larger in size and paler in colour, and there are three distinct spots in the basal area. The fringes of the primaries are of ground colour, spotted and dashed with pale yellowish-white, and those of the secondaries are pale yellowish-white, with patches of the ground colour at the extremities of the nervules. Antennæ are black, broadly banded with whitish before the club. Expanse, 50 mm.

This species agrees in many respects with *C. pero*, de Nicéville, Bomb. Nat. Hist. Journ., iv., p. 183, pl. B, fig. 12 (1889); but apart from the more rounded contour of outer margin of primaries, the different character of the markings on antennæ and fringes of primaries will, in conjunction with the additional spots on the under surface, separate these two closely-allied species.

Received from Moupin, Omei-Shan, and Wa-Shan. Occurs in June and July, at altitudes ranging from 3000 to 6000 feet.

CELÆNORRHINUS ASPERSA, sp. n.

♂. Similar to *Celænorrhinus* (*Pterygospidea*) *maculosa*, Feld., but larger, and the outer margin of primaries is straighter; the antennæ are whitish in front; the spots on the primaries are numerically the same, but those in the median and submedian interspaces are elongated and placed wider apart. On the secondaries the number and arrangement of yellow spots is almost identical in both species, but in *C. aspersa* they are larger, and the three placed between discal spot and abdominal margin are more or less confluent. On the under surface the basal area of secondaries is dusted with yellowish scales. Fringes of primaries are of the ground colour, and of the secondaries yellow, except along the costal third of outer margin, where they are of the ground colour.

One specimen from Chia-kou-ho. Taken at an elevation of 1700 feet in July.

DESCRIPTIONS OF SOME NEW SPECIES OF PHYTOPHAGOUS COLEOPTERA.

By Martin Jacoby, F.E.S.

HALTICINÆ.

Simæthea nigroplagiata, n. sp.

Black; the head and thorax flavous, the former with the base and the latter with a central spot black; elytra flavous, foveolate punctate-striate, a transverse band at the base and a large ovate spot near the apex of each elytron, black. Length, 4½ lines.

Head impunctate, flavous, the base black, apex of mandibles black; antennæ extending to nearly half the length of the elytra, black, shining, the third and fourth joints equal, elongate, the terminal joints shorter; thorax subquadrate, slightly broader than long, the sides straight at the base, slightly rounded in front, the disc flavous, remotely foveolate-punctate, the middle with an elongate narrow black spot; scutellum piceous; elytra with nine rows of deep foveolate punctures, remotely placed, the base with a narrow black transverse band, not extending to the lateral margins, the space below the middle occupied by a large ovate black spot not touching either margin; breast, abdomen, and legs, black.

Hab. Java (Fruhstorfer).

S. nigroplagiata, of which I received a single specimen, forms the third species of the genus *Simæthea* (*Atimeta*, Chap.); it agrees with the others in the deep punctuation of the elytra and in general shape, but differs entirely in its system of coloration.

Pseudodera balyi, n. sp.

Rufous; the antennæ, tibiæ, and tarsi black; the thorax impunctate, the basal sulcation obsolete; elytra finely puncture-striate, piceous, margined with rufous, each with a large ovate yellow spot near the apex. Length, 3 lines.

Head impunctate, the frontal elevations strongly raised, oblong, bounded by a deep transverse groove behind; antennæ, extending beyond the middle of the elytra, black, the fourth joint slightly longer than the third; thorax but little broader than long, the sides very slightly rounded, the angles obtuse, the surface impunctate, rufous, the basal sulcation obsolete, more deeply marked at the middle and bounded laterally by a longitudinal groove; elytra finely punctate-striate, piceous, or nearly black, the sutural and lateral margins narrowly rufous, as well as the extreme apex, the space in front of the latter occupied by a large yellow ovate patch; under side and femora rufous, tibiæ and tarsi black.

Hab. Chang-Yang, China (Pratt).

This species was formerly looked upon by me as a dark variety of *P. xanthospila*, Baly, but a closer examination has proved to me that it must be considered a distinct species; the differences are the following:—The thorax in the present insect has the sides nearly straight; in *P. xanthospila* they are strongly widened before the middle, and the basal sulcation is much deeper and more marked; the elytra also are much more strongly punctured and are rufous, with the exception of the flavous posterior spot, which is smaller than in *P. balyi;* the

shape of the thorax, however, is the principal mark of distinction between the two species. The present one is the fourth of the genus now known.

GALERUCINÆ.

ANTIPHA QUADRIMACULATA, n. sp.

Flavous, the head black, the thorax very sparingly punctured; elytra distinctly punctured in rows, each with a large transverse spot at the base and a smaller one below the middle, black, their margins piceous; breast piceous, or black. Length, 3 lines.

Head black, impunctate, the frontal elevations strongly developed, transverse, labrum testaceous; antennæ slender, flavous, the third joint one-half longer than the second; thorax more than twice as broad as long, the sides slightly rounded at the middle, the angles distinct, thickened, surface with a few minute punctures, flavous; scutellum pale fulvous; elytra finely punctured in rather closely approached rows, flavous, the basal spot extending downwards to one-third of their length, but generally not quite to the sutural margin, its lower edge very uneven, the posterior spot subtriangular or oval, placed below the middle and often surrounded by a brownish margin; under side and legs flavous, the breast dark fulvous or piceous.

Hab. Java (Fruhstorfer).

In one specimen the antennæ (with the exception of the first and last two joints) and the tibiæ and tarsi are black.

ANTIPHA ORNATA, *Jac.*

Of this species, lately described (*ante*, p. 38), I have received specimens from Java, in which the antennæ, the head, thorax, elytra (the central spot excepted), and the legs are black, proving the species, therefore, to be very variable in colour.

AGETOCERA BIRMANICA, n. sp.

Black; the head and thorax impunctate; elytra metallic greenish, very closely punctured; abdomen flavous.

♀. The eighth joint of the antennæ elongate, slightly thickened. Length, 4½—5 lines.

♀. Head black, impunctate; the frontal elevations strongly raised, trigonate; labrum and palpi black; antennæ, extending to half the length of the elytra, black, the eighth joint the longest and thickened, the terminal joint with an appendage; thorax subquadrate, strongly narrowed from the base to the middle at the sides, the latter narrowly margined, the anterior angles thickened, the surface impunctate, black, with a deep transverse depression at each side and extending nearly to the middle; scutellum black; elytra dilated posteriorly, with a distinct depression below the base and a less distinct one below the middle, the surface closely and finely punctured, the sides with a slightly raised ridge from the middle to the apex; the breast and legs black; abdomen flavous; claws bifid.

Hab. Birmah.

Of this species I have lately received four specimens, apparently all females. *A. birmanica* seems very closely allied to *A. flaviventris*, Jacoby, of which it may possibly be a local form, but in that insect the labrum and the antennæ are flavous, and the elytra violaceous blue; the antennæ in the present species are also more filiform and less thickened.

Haplosonyx philippinensis, n. sp.

Rufous; the antennæ and the tarsi pale flavous; thorax sparingly punctured, deeply depressed at the sides; elytra finely punctured in irregular rows, the interstices minutely punctate. Length, 5 lines.

Of uniform reddish colour above, the under side paler; the head impunctate; the clypeus strongly raised, triangular; the apex of the mandibles black; the antennæ extending to half the length of the elytra, pale flavous, the basal joint fulvous, the second and third joints short, subequal; thorax more than twice as broad as long, the sides straight from the middle to the base, widened and rounded anteriorly, the anterior angles obliquely thickened, the posterior ones acute, the disc with a very deep lateral depression or fovea, which also extends downwards to the base, very sparingly and minutely punctured; scutellum fulvous, smooth; elytra with the basal portion distinctly raised and bounded by a transverse depression below the base, the disc finely punctured in indistinct double rows, the interstices also minutely punctured; under side rather pale; the tibiæ more flavous, with an obsolete darker stripe at the outer margins; tarsi flavous.

Hab. Philippine Islands.

A single specimen is contained in my collection.

Platyxantha variabilis, n. sp.

Black; the head, antennæ, thorax, and legs fulvous; thorax without impressions, impunctate; elytra very finely punctured or impunctate, fulvous, a broad transverse band at the base and another below the middle, black.

Var. *a*. Elytra black, an obscure transverse band at the middle, and the apex broadly fulvous.

Var. *b*. Elytra entirely black.

Var. *c*. Under side pale fulvous.

Length, 3½ lines.

♂. Head broad, impunctate, fulvous; the frontal elevations narrowly transverse, the space between the antennæ raised into an acute ridge and terminating in front in a blunt tubercle; anterior margin of the clypeus concave; apex of the mandibles black; antennæ extending nearly to the end of the elytra, slender, fulvous or piceous, the first joint very slender and elongate, stained with black above, the second very short, the third concave at its outer edge, the fourth joint slightly shorter than the preceding one; thorax slightly broader than long, the base somewhat narrowed, the sides nearly straight, the anterior angles slightly produced, the surface without any depressions, impunctate; scutellum flavous or black; elytra not perceptibly punctured, slightly depressed below the base, their epipleuræ prolonged below the middle; tibiæ unarmed, anterior coxal cavities closed.

Hab. Java (*Fruhstorfer*).

Evidently a most variable species in regard to colour, not two specimens being alike, and allied to *P. clypeata*, Baly, with which it agrees in the smooth, not foveolate or impressed, thorax. I have taken the description from a well-marked specimen, in which the elytra have two transverse black bands of variable shape, the first leaving a narrow space above the shoulder of the fulvous ground colour, and being narrowed at the sides; the posterior one is of more regular width. In one of the varieties these bands are connected, but interrupted at the middle by some spots of the fulvous ground colour. In

another variety the elytra are, however, entirely black, with the exception of a narrow basal and lateral margin; the female has less robust and straight joints of the antennæ. *P. variabilis* may easily be mistaken for *Metellus fulvicollis*, Jac., without an examination of the antennæ and thorax; the punctuation of the elytra in the present species is fine but distinct in the female, entirely obsolete in the male insect.

METELLUS (*Nacrea*, Baly) UNIFORMIS, n. sp.

Entirely pale fulvous; the thorax impunctate, with two foveæ; elytra depressed below the base, finely and closely punctured.

♂. The third joint of the antennæ dilated.

Var. The terminal joints of the antennæ, the legs, and under side more or less piceous.

Length, 3½ lines.

♂. Head longer than broad, impunctate, the penultimate joint of the palpi thickened; antennæ filiform, two-thirds the length of the body, the second joint extremely short, moniliform, the third longer than the first joint and much dilated, subangulate at the middle, the others slender and elongate; thorax but slightly broader than long, the sides nearly straight, the surface shining, impunctate, with a fovea at each side; elytra rather depressed, with the basal portion slightly raised, closely and finely punctured, the punctures indistinct below the middle; tibiæ unarmed, the first joint of the posterior tarsi as long as the following two joints; claws appendiculate anterior coxal cavities closed.

Hab. Java (Fruhstorfer).

The genus *Metellus*—originally described by myself as *Neocharis*, but changed subsequently on account of the name having been used already—is identical with Baly's genus *Nacræa* (Trans. Ent. Soc. Lond., 1886), which name must sink into a synonym. *Metellus* is closely allied to *Platyxantha*, Baly, and only differs in having the third joint of the antennæ in the male dilated, instead of the apical joints as in *Platyxantha*, the same sex in the latter genus also possessing styliform processes at the posterior tibiæ; there seems to be, however, no character present to distinguish the female sex in the two genera (that sex in the three typical species was not known to Baly, but this author has since described a species possessing filiform antennæ in both sexes, *P. clypeata*). The present species, of which I received one male and several females, differs from the other two at present known by the uniform pale fulvous colour, and from *M. fulvicollis*, Jac., besides its coloration in the non-excavated third dilated joint of the antennæ in the male; in one specimen the under side and legs are stained with piceous.

NEW SPECIES OF RHOPALOCERA FROM WESTERN CHINA.

By J. H. Leech, B.A., F.L.S., &c.

Neope simulans, sp. n.

Allied to *N. christi*, Oberth., which it almost exactly resembles on the upper surface, but it is smaller, and the venation is not marked with white on the central third of the wings. On the under surface of primaries the yellow markings are deeper in colour, and the black ones are more intense; the ocelli are without pupils; the white markings of the secondaries are replaced by grey, and are narrower; the basal transverse olive-brown band is broken up into three spots; the ocelli are not pupilated, and the second ocellus is elongate. Expanse, ♂ 70 mm., ♀ 74 mm.

Occurs in Western China, at Wa-ssu-Kow, Omi-Shan, Chia-Kow-Ho, and Chow-pin-sa, in June and July.

Ypthima insolita, sp. n.

♂. Allied to *Y. megalomma*, Butl., with which it agrees almost exactly on the upper surface, but exhibits the following differences on the under surface:—The primaries whitish, heavily suffused with olivaceous, with a well-formed small ocellus directly under the apical one; the secondaries are whitish, with a broad ill-defined olivaceous band from middle of outer margin to the abdominal fold, before which it unites with another olivaceous band from the middle of costa; there is a small ocellus at outer angle, another in the first median interspace, and a still smaller one at anal angle; each of these with silvery pupil and yellow iris. Expanse, 32 mm.

Three male specimens from Wa-ssu-Kou, where they were taken in June.

Ypthima prænubila, sp. n.

♂. Fuscous brown; all the wings have a broad interrupted blackish submarginal band; the apical ocellus of primaries is somewhat ovate, with two bluish pupils (set directly one below the other) and suffused yellowish iris; on the secondaries there are two ocelli towards anal angle, the second bipupilated. The under surface is whitish, tinged with ochreous on primaries and along outer margins of secondaries; all the wings have a number of transverse undulated brown lines, and the primaries have a brown band from the centre of the wing to the inner margin; the submarginal band is of the same colour. On the secondaries there is an ocellus just below costa and towards outer angle, and there are two others at anal angle; all these are fairly large and well defined.

♀. Similar to the male, but the ocellus at anal angle is almost obsolete on the upper surface, and there is an additional one in the second median interspace; on the under surface all these ocelli are well defined.

Expanse, ♂ 56—60 mm., ♀ 64 mm.

Ta-chien-lu, May and June; Chia-Kow-Ho and Moupin, July; Omei-Shan, July and August; Wa-Shan, August; Kiukiang.

Ypthima conjuncta, sp. n.

♂. Allied to *Ypthima methora*, Hewitson, but the outer margin is straighter; the colour is slightly paler, and all the wings have a broad fuliginous border on the outer margin; the basal half of the secondaries is darker, limited by a dentated dusky line; the ocellus of primaries is more oval in shape, and the yellowish iris is broad and suffused. On the under surface there are fewer undulated lines, and these are coarser, except on the

inner area of secondaries, and more interrupted; there is a broad oblique brownish band on primaries before the ocellus, and a straight broad line of the same colour beyond the ocellus; four of the five ocelli on secondaries are united in pairs; the fifth, placed at anal angle, is large and bipupilated.

♀. Similar to the male, but the ocellus of primaries is preceded and followed by a pale band, which unite on the inner margin; there is a second ocellus, midway between the apical one and the inner angle, and the upper ocellus of secondaries is much larger than the second.

Expanse, ♂ 50 mm., ♀ 58—64 mm.

Ta-chien-lu, Moupin, and Chia-Kow-Ho, July; Omei-Shan, July and August; Wa-shan and Huang-mu-chang, August; Chang-Yang; Ichang.

Lethe laodamia, sp. n.

♂. Allied to *Lethe* (*Debis*) *davidi*, Oberth., but it is much paler on the upper surface, and the spots on the secondaries are distinctly black; the fifth with a white central dot, as in *davidi*, and between this and the inner margin is a small triangular red patch. The under surface is grey-brown; the primaries have a reddish brown bar across the cell, and there are two bands of the same colour beyond, the outer one oblique and edged externally with whitish; there are four ocelli on the outer margin placed on a pale lilacine band; submarginal and marginal lines brownish; the secondaries have two reddish brown bands and a series of six ocelli, each of which has a pale lilacine zone, and the first and fifth are larger than the others; the outer margin is reddish brown, traversed by two pale lines. Expanse, 64 mm.

One male example, taken at an elevation of 6000 feet at Wa-shan, in July.

Lethe titania, sp. n.

Allied to *Lethe* (*Debis*) *serbonis*, Hewitson, with which it agrees in many respects on the upper surface, but the colour is rather brighter; the limiting line of the basal area of primaries is angulated; the pale marks below costa are more obscure; the white dot in fifth black spot is very faintly indicated, but the first black spot is larger and has a pale centre. The under surface of primaries is pale brown; the cell is crossed by two reddish brown bars, enclosing a violet-grey space; beyond the cell is a reddish brown band, which is broadest below costa, where it is outwardly bordered with violet-grey, and tapers towards inner margin; there is a short band of violet-grey from the apex, in which is placed three faint ocelli; marginal line violet-grey, edged internally with brownish. Secondaries darker than the primaries, basal two-thirds suffused with violet-grey, traversed by two reddish brown bands, the first is narrower than the second, which has a deep outward projection just above the third nervule; the ocelli are well defined, each has a violet-grey zone, and the pupil of the fourth is very large; there is a cloud of violet-grey at the outer angle, and the marginal line, of the same colour, terminates in a triangular spot at the anal angle. Fringes whitish, marked with brown at the ends of the nervules. Expanse, ♂ 63—66 mm., ♀ 70 mm.

Moupin, June; Pu-tsu-fong, June and July; Kia-ting-fu, July.

Lethe christophi, sp. n.

♂. Pale brown. Primaries have some indistinct pale spots below costa on outer third of the wing, but there are no other markings. Secondaries have a large silky black patch below cell, and beyond this there is a series of five blackish spots, the largest being the first, second, and fourth; this last has

traces of a white pupil; the submarginal line is broad and pale, but not well defined. Under surface pale brown, strongly suffused with lilacine on the basal two-thirds of all the wings, and apical third of fore wings; the primaries are traversed by two broad rufous brown parallel lines, both are rather wavy, but the first does not quite attain the costa; the cell is crossed by a bar of the same colour; there is a small ocellus towards apex, with two white spots below it, and a pale cloud above; submarginal line wavy and dusky, ill-defined below costa, and diffused below third median nervule; marginal line rufous brown: secondaries are traversed by two rufous-brown lines, the outer one curved, and beyond it is a series of six ocelli, of which the first and sixth are the largest, the last is bipupilated, and the white pupil of the fourth is conspicuously large; submarginal and marginal lines as on primaries. Fringes white, chequered with brown at the extremities of the nervules.

♀. Similar to the male, but the outer third of primaries is paler, limited by a narrow dusky band, and the white spots are more distinct; the apical half of the outer third of secondaries is also paler, and the fourth black spot has a large white central spot.

Expanse, ♂ 56—74 mm., ♀ 63—80 mm.

Moupin; Omei-Shan, July and August; Chang-Yang.

Allied to *Lethe bhairava*, Moore, but, apart from its paler colour, it is easily distinguishable from that species by the different character of the sexual mark in the male, and the different marking of the under surface.

Neope (Satyrus) armandii, *Oberthür*, Etud. d'Entom. ii., p. 26, pl. ii., fig. 5 (1876).

Neope khasiana, Moore, Trans. Ent. Soc. Lond., 1881, p. 306.

Var. *fusca*, var. nov.

Primaries much as in the type, but a trifle darker in colour; the secondaries are brown, instead of yellow as in the type, but the black spots are more or less completely encircled with yellowish. The general appearance of the upper surface is very like that of *Neope romanovi*, Leech (Entom. xxiii., p. 29).

This form was obtained only at Chang-Yang and Omei-Shan in July and August.

Coleoptera collected by Mr. Pratt on the Upper Yang-tsze, and on the borders of Tibet. Second notice. Journey of 1890. By H. W. Bates, F.R.S., F.L.S., &c.

On his second journey up the Yang-tsze, and through the Province of Sze-chuen to the Tibetan borders at Ta-tsien-lu, Mr. Pratt obtained a collection of Coleoptera, which, though smaller than that of his journey of 1889, includes a considerable number of new and interesting species. The following list is confined to such species as were not mentioned in our former notice in the 'Entomologist' for July, 1890, and is restricted, as before, to the great tribes Geodephaga, Lamellicornia, and Longicornia.

Fam. CARABIDÆ.

Carabus viridifossulatus, *Fairmaire*, Ann. Soc. Ent. Belg. xxxi. p. 91.

Ta-tsien-lu. Two examples.

This well-marked and elegant species was described by Fairmaire from examples taken at Moupin. Mr. Pratt's specimens agree with the description, but are rather larger—33–36 millim.

Carabus trachynodes, n. sp.

C. armeniaco (Dej.) subsimilis; minor præsertim antice angustior capite et thorace grosse rugoso-scabratis. Cupreo-æneus vel viridescenti-niger, subtus (lateribus subæneis exceptis) cum antennis palpis pedibusque niger. Caput mediocre, post oculos prominentes angustatum; labrum late emarginatum; palpi (♂) articulo apicali parum dilatato, labialium articulo penultimo bisetoso. Thorax parvus subcordatus, antice breviter rotundatus deinde subrecte et paullo usque ad angulorum apicem angustatus, angulis breviter prolongatis medio basi subrecto, margine apicali late subsinuato, angulis anticis deflexis margine laterali tenui nullo modo reflexo. Elytra postice valde convexa, elongato-ovata postice dilatata, deinde usque ad basin angustata; utrinque foveis (tuberculis oblongis separatis) triplici serie, intervallis striis et interstitiis angustis tribus aspere granulatis, plus minusve confusis, lateribus et apice granulato-rugosis. ♂. Tarsi antici articulis 4 dilatatis et subtus erecte pubescentibus. Mentum parum emarginatum, dente brevi acuto. Long. 18 millim.

Snowy Range, Ta-tsien-lu; alt. 13,000 ft. The few examples are all males.

Carabus promachus, n. sp.

C. protenes (Bates) affinis sed ab omnibus speciebus hujus Sectionis (*Apotomopterus*) differt thorace nullo modo cordato, sed subelongato-quadrato, paullo ante medium leviter dilatato, antice plus quam postice et longe angustato. Valde elongatus, niger elytris margine cærulescenti. Caput elongatum vertice parce punctato, fronte utrinque usque ad epistomatis marginem anticum valde sulcata, juxta oculos sat prominentes strigosa. Thorax sat anguste elongatus post dilatationem antemedianum longe sinuatus et paullo angustatus, angulis posticis sat longis fere recte retrorsum porrectis, margine laterali præcipue postice reflexo; supra nec profunde nec dense punctato-rugulosus. Elytra valde elongata postice convexa apicem versus dilatata deinde usque ad basin angustata, humeris valde

obliquis, apice (♂) perparum oblique sinuata; supra foveis (lineolis separatis) utrinque triplici serie, intervallis tri-striatis et tri-carinulatis, striis transversim punctatis, carinulis postice granulatis, intervallo marginali carinulis duabus antice et postice valde abbreviatis, margine et apice (late) confuse granulatis. Palpi articulo apicali sat late dilatato; labiales articulo penultimo 3 vel 4-setoso. Tarsi antici ♂ articulis 4 dilatatis et subtus dense erecte pubescentibus. Long. 28 millim., ♂.

Ta-tsien-lu. One male example.

Cychrus yunnanus, *Fairmaire*, Ann. Soc. Ent. Belg. xxxi. p. 4.

Snowy Range, Ta-tsien-lu; alt. 13,000 ft. A few examples agreeing with M. Fairmaire's description made from Yunnan specimens.

Penetretus quadraticollis, n. sp.

Anguste oblongus mediocriter depressus, niger nitidus; thorace elytris haud angustiori quadratus, lateribus ante medium perparum rotundatis, prope basin profunde sinuatis angulis posticis acutis. Long. 10 millim., ♂ ♀.

Differs from all other known species of the *Patrobinæ* group by the relatively large quadrate thorax, which gives it the facies of a *Pterostichus*. The colour is deep shining black, the palpi rufescent piceous. The eyes are rather less prominent than in *P. rufipennis*, *nebrioïdes*, and *ambiguus*, and the head less narrowed behind to the neck; the frontal furrows are long, deep, and rugose, and the transverse occipital furrow (far behind the eyes) is punctured. The lateral margin of the thorax is thickened and raised, and the furrow on its inner side thereby created is punctured from base to apex; the broad and deep basal fovea on each side and the entire base are also strongly punctured; the fovea is moreover bistriate, and an oblique carina limits the exterior stria on its outer side. The elytra are relatively rather short; the humeri rectangular, the apex of the angle being thickened and elevated; the sides have a scarcely perceptible curve towards the base; the striæ are sharply impressed and punctulated, the interstices nearly plane, the third near the 3rd stria tripunctate. Beneath, the sides of the sterna and basal ventral segment are strongly punctured.

As in other species of *Penetretus*, the posterior supra-orbital setiferous pore is situated behind the eye and towards the vertex, the anterior being close to the middle of the eye.

Pterostichus latecostata, *Fairmaire*, Ann. Soc. Ent. Belg. xxxi. p. 94 (*Platysma*, id.).

Snowy Range, Ta-tsien-lu; alt. 13,000 ft.

Described by M. Fairmaire from an example sent by MM. Delavay and Chaste from Yunnan. The species seems to me to belong to the restricted genus *Pterostichus* of continental authors rather than to the genus, or subgenus, *Platysma*, in which M. Fairmaire placed it, the metathoracic episterna being short, as in *P. multipunctata*, Dej., and allies.

Platysma æneocuprea, *Fairm.*, Ann. Soc. Ent. Belg., xxxi. p. 95.

Snowy Range, Ta-tsien-lu; alt. 13,000 ft.

Platysma yunnana, *Fairm.*, *l. c.*, p. 94.

Snowy Range, Ta-tsien-lu; alt. 13,000 ft.

In both the foregoing the metasternal episterna are elongate,

as in *Platysma* (*P. oblongopunctata*), and seem to have their right place in that genus, although the brilliant metallic colours of *P. æneocuprea* is a very unusual feature in that group.

Triplogenius chalcothorax, *Chaudoir*, Ann. Soc. Ent. Belg. xi. p. 153.

Sze-chuen. Two examples agreeing with others found in Cochin-China, except that they are larger (26—28 millim.).

Leiocnemis chalciope, n. sp.

Quoad formam *Bradyto brevipenni* (Chaud.) similis, sed colore valde diverso, nigra polita supra viridi-ænea. Thorax elytris parum angustior margine prope basin breviter sinuatus, angulis posticis acutis anticis porrectis, limbo toto punctulato basi densius et grossius punctulato, disco lævi foveis basalibus utrinque duabus, exteriori minori absque carinula prope angulum. Elytra acute subpunctulato-striata. Long. 9 millim.

Snowy Range, near Ta-tsien-lu; alt. 13,000 ft. One example, male.

Resembles *Bradytus brevipennis* (Chaud.) and *Amathitis cordata* (Putz.) in form, but belongs to the genus *Leiocnemis* in technical characters, the hind tibiæ of the ♂ being free from fine pubescence on the inner side, and the metathoracic epimera elongate. The colour is deep black, with the upper surface and the elytral epipleuræ dark, polished, brassy-green, the palpi, antennæ, and tarsi being dull pitchy-red. The elytral striæ are all sharply impressed and punctulated, the inner striæ without foveola at the base, the interstices nearly plane and impunctate. The mentum has a short and broad tooth, not perceptibly notched at the apex. The thorax is short and broad, of about the same width at the anterior as at the posterior angles, the sides regularly and very slightly arcuated from the porrected anterior angles to near the base, where they are for a brief space strongly sinuated, the hind angles acute.

Pristodactyla alticola, n. sp.

Elongata subænescenti-nigra antennis et palpis rufo-piceis. Caput latiusculum, collo transverse depresso, oculis sat prominentibus. Thorax subcordatus, angulis anticis haud prominentibus posticis fere rotundatis, margine laterali antice mediocriter postice altius reflexo, supra subtiliter strigosus, fovea utrinque basali magna, lævi. Elytra elongata postice paullo ampliata, humeris distinctis etsi rotundatis; sat profunde subcrenulato-striata interstitiis convexis, 3io bipunctato. Long. 13 millim.

Snowy Range, Ta-tsien-lu; alt. 13000 ft. A good number of examples.

Congeneric with *P. cathaica*, and receding still more than that species from the form and facies of *Calathus*, from which genus it differs in the immarginate prosternal apex. The terminal joints of the palpi are ovoid-cylindrical, truncated at their apices; the four hind tarsi are sulcated on each side of joints 1—4; the claws are rather strongly pectinated nearly to the apex, and the legs elongate, the hind tarsi fully equal in length to the tibiæ. The dilated joints 1—3 of the male anterior tarsi are subequal in length and triangular, about as long as broad, 2 and 3 having distinct angles and slightly rounded sides.

Colpodes nivium, n. sp.

C. ganssuensis (Semenof) affinis, a quo differt corpore elongato angusto Depressus, supra saturate viridi-æneus politus, elytris margine reflexo cum

epipleuris, palpis antennis et pedibus obscure rufescentibus, corpore subtus nigro. Caput ovatum convexum, collo sulcato-constricto, foveis frontalibus brevibus; oculis parum prominentibus. Thorax ovalis, lævis, margine laterali præcipue postice reflexo, angulis posticis obtusis. Elytra anguste elongato-ovata, thorace parum latiora, apice perparum sinuata, subpunctulato-striata striis exterioribus vix impressis, interstitiis planis tertio grosse tripunctato. Antennæ articulo 3io sequente perparum longiori. Palpi articulo apicali graciliter ovato. Tarsi 4 posteriores utrinque sulculati, articulo 4to posticis triangulari, intermediis et anticis inæqualiter bilobato; plantis omnibus (articulo unguiculari conjuncto) sat dense ciliatis. Metathoracis episterna brevia sed angusta, latitudine basali distincte longioria. Long. 9 millim.

Snowy Range, Ta-tsien-lu; alt. 13,000 ft. Two examples.

Belongs to the same section of the genus as *C. bentonis*, and allied species of Japan, to which also *C. ganssuensis* is probably to be referred, though the metathoracic episterna seem to be somewhat longer in that species.

Colpodes pratti, n. sp.

Viridi-cupreus, nitidus, subtus niger, palpis antennis pedibusque obscure rufis; thorace breviter, elytris longius et latius, ovatis, his convexis, humeris omnino rotundatis. Caput ovatum convexum læve, collo supra depresso parum constricto. Thorax capite dimidio latior breviter ovatus vel subcircularis, lævis, margine laterali anguste explanato-reflexo angulis posticis nullis. Elytra thorace duplo latiora convexa apice perparum sinuata, subpunctulato-striata striis exterioribus haud impressis, interstitiis fere planis. Metathoracis episterna brevia et lata, latitudine basali haud longiora. Tarsi 4 posteriores utrinque sulculati, articulo 4to omnibus apice leviter sinuato, in anticis valido oblongo-triangulari; plantis omnibus (unguiculari incluso) longe et dense ciliatis. Long. 11—12 millim., ♂ ♀.

Snowy Range, Ta-tsien-lu; alt. 13,000 ft.

A large number of examples. Belongs to the same section of the genus as *C. ovaliceps*, and numerous other Himalayan species, in which, however, the 4th joint of at least the anterior tarsi is distinctly and unequally bilobed.

Harpalus oreas, n. sp.

H. lævicolli (Dufts.) affinis; major breviter oblongus, convexus, ♂ ♀ niger politus elytris iridescentibus, glaberrimis; sulcis frontalibus linea tenui usque ad oculum continuatis. Thorax late cordato-quadratus, lateribus antice mediocriter rotundatis vix sinuatis, angulis posticis acutis, basi utrinque late punctato. Elytra apice leviter oblique sinuata, subcrenulato-striata, interstitiis fere planis 3io unipunctato. Palpi, mandibulæ (apice excepto) et antennæ piceo-rufa, pedibusque interdum rufescentibus. Metathoracis episterna brevia latitudine distincte breviora, punctata. Mentum acute dentatum. Long. 10 millim.

Snowy Range, Ta-tsien-lu; alt. 13,000 ft.

Very similar to the European *H. lævicollis* (Dufts.), but larger, more convex, and the metathoracic episterna much broader and shorter. It belongs to a numerous series of species of Eastern Asia, closely allied to, if not congeneric with, *Trichotichnus* (Morawitz).

Fam. COPRIDÆ.

Gymnopleurus morosus, *Fairmaire*, Ann. Soc. Ent. Fr. 1886, p. 319; *G. sinuatus*, Olivier, var. ?

Sze-chuen. Several examples, varying in the clearness of the coppery colouring, and in the prominence of the hind angles of the thorax; the species is therefore probably only a variety of the well-known *G. sinuatus* of South-eastern China.

Catharsius molossus, *Linn.*, Syst. Nat. i. 2, p. 543.

Sze-chuen.

Geotrupes biconiferus, *Fairmaire*, Ann. Soc. Ent. Belg. xxxi. p. 103 (?).

Ta-tsien-lu. A single example doubtfully referred to this species, which is from Moupin.

Geotrupes corinthius, *Fairm.*, Ann. Soc. Ent. Fr. 1886, p. 322.

Sze-chuen.

Geotrupes (*Ceratotrupes ?*) serricornis, n. sp.

Breviter oblongus, crassus, convexus, niger leviter metallescens, subnitidus, capite et thorace grosse intricato-rugosis, elytris striis utrinque circiter 25 irregulariter crenatis, interstitiis paullo transversim rugosis; pectore et pedibus nigro-fusco-hirtus, antennis nigris clava atro fusca. Genæ antice paullo latiores et acutangulatæ.

♂. Cornu verticis elongatum verticale postice paullo inclinatum, antice-postice compressum, dilatatum, gradatim acuminatum lateribus grosse serratis. Thorax brevis, latissimus, medio antice cornu breve quadrato apice emarginato, subverticali antice paullo inclinato; declivitate anteriori alta lævi politissima; lateribus paullulum rotundatis, angulis anticis dentiformibus, margine antico in medio sicut in *Enoplotrupes* lobiformiter producto. Long. 28 millim.

Sze-chuen.

By the structural characters this species comes between the subgenera *Ceratotrupes* (Jekel) and *Enoplotrupes* (Lucas).

Fam. MELOLONTHIDÆ.

Toxospathius auriventris, n. sp.

Sat anguste oblongus, fulvescenti-rufus elytris flavis, abdomine (pygidio segmentoque ventrali rufo-fulvis exceptis) splendide viridi-aurato. Caput grosse punctatum, clypeo lævi transversim breviter quadrato supra profunde concavo. Thorax elytris angustior, medio leviter angulato-dilatatus angulis posticis obtusis, convexus, grossissime hic illic confluenter punctatus. Elytra subtilius subdiscrete punctata absque lineis et striis. Caput, thorax et pectus fulvo-hirsuta. Pygidium elongato-semiovatum grosse longitudinaliter rugosum. Antennæ 10-articulatæ. Unguiculi apice fissi sed dente inferiori paullo latiori et breviori.

♂. Palpi maxillares elongati articulo apicali dilatato subsecuriformi; labiales minimi. Venter fulvo-hirsutus et punctatus, medio longitudinaliter planatus et densius hirsutus. Antennæ clava maxime elongata 7 lamellata, lamellis æqualibus, articulo tertio 2ndo plus quam duplo longiori.

♀. Palpi maxillares elongati articulo apicali subovato. Venter valde convexas politus, sparse fulvo-pilosus et punctatus. Antennæ clava parva 4 lamellata, lamella prima (articulo 7o) breviori articulis 5 et 6 intus brevissime productis. Long. 12—17 millim.

Ta-tsien-lu.

Evidently closely allied to *T. inconstans* (Fairm., Ann. Soc. Ent. Fr. 1878, p. 103, pl. 3, fig. 1), and differing chiefly in size, sculpture, and the brilliant metallic colouring of the abdomen, which remains in examples that have been a long time in alcohol. *T. inconstans* is said by M. Fairmaire to be of an azure blue in life, of which colour nothing remains in the dried specimens but faint spots on the pygidium and abdomen. The genus is allied to *Rhizotrogus* and *Brahmina*.

Hilyotrogus longiclavis, n. sp.

Rhizotrogo æstivo (Oliv.) subsimilis; sat gracile oblongus, rufo-testaceus, elytris leviter pruinosis et iridescentibus. Long. 15—16 millim.

Sze-chuen.

According to the description resembles *H. unguicularis* (Fairm.), and, except in colour, *H. iridipennis* of the same author; but the structure of the antennæ differs a little, although not sufficiently to remove the species from the genus *Hilyotrogus* (Fairm.), of which a club of five lamellæ forms one of the chief generic characters. The antennæ in *H. longiclavis* is 10-jointed, and the 5-jointed club is long and slender (equalling in length joints 1—5), the two inner joints just perceptibly shorter than the other three; but the 5th joint of the stem is also prolonged into a leaflet about one-third the length of the club, and the 4th also is acutely pointed on its inner side. Fairmaire describes the 4th and 5th joints as angular on the inner side. The scape is rather short, and joints 2—5 shorter and nearly of equal length. The terminal joint of the maxillary palpi is slenderly ovate and truncated at the apex. The head is short and broad, and rather densely and equally punctured; the clypeus short, strongly rounded on the sides, with reflexed margins, subtruncated in front; the frontal suture very deep and nearly straight. The thorax is as broad as the elytra at the base, with obtuse hind angles and crenulated lateral margins, evenly and separately punctured. The elytra have a sutural and four discoidal striæ, with three corresponding broad scarcely elevated costæ, which are nearly smooth, the rest of the surface being rather closely punctured and subcoriaceous. The pygidium is triangular, elongated, rugulose-punctate. The ventral sutures are visible, but soldered. The numerous examples appear to be all of the same sex, as no difference is observable in the apical ventral segments.

Lachnosterna ochrogaster, n. sp.

Oblonga robusta, supra nigra griseo-pruinosa, opaca, subtus cum antennis pedibusque nitida rufo-picea, abdomine toto testaceo-flavo. Unguiculi dente infra medium valido, basi dente minuto acuto. Long. 23—25 millim.

Sze-chuen.

A large, oblong, robust species; elytra somewhat dilated posteriorly. The head small, closely punctured, the mandibles visible in repose; clypeus sinuated in the middle, rounded on the sides, margin reflexed. Thorax narrower than the elytra, hind angles approaching a right angle, front margin rather strongly arcuated, lateral prominently rounded, crenated anteriorly; surface covered with shallow umbilicated punctures, widely

spaced on the disk. Elytra often reddish brown, translucent, sprinkled with smallish umbilicated punctures, the sutural and two faint discoidal costæ more sparsely punctured, and with their edges much broken by short transverse rugæ, like the rest of the surface; there is a faint submarginal raised line. Pygidium nearly plane, sparsely punctured, shining. The breast clothed with tawny hairs; the abdomen convex, shining, very finely punctured.

LACHNOSTERNA PARALLELA, *Motsch.*, Etud. Entom. 1854, p. 64.

A common and widely-distributed species in Eastern Asia. Mr. Leech obtained it abundantly in Japan, and found it also at Fu-chau. I have seen examples also from the Island of Formosa.

LACHNOSTERNA PEXICOLLIS, *Fairmaire*, Ann. Soc. Ent. Fr. 1886, p. 324 (*Holotrichia*, id.).

Sze-chuen. M. Fairmaire's examples were from Yunnan. The species belongs to a numerous series in which the head and thorax are very closely and uniformly covered with small punctures, which on the thorax run more or less into wavy rows. The clypeus is broadly rounded on the sides, and notched in the middle of the front edge. The situation of the tooth on the tarsal claws varies from species to species; in the present one it is very near the apex, and forms with it two nearly equal teeth, justifying M. Fairmaire's statement, "unguibus bifidis." The colour above is dull black, clothed with a greyish pruinosity. The following two species are closely allied :—

LACHNOSTERNA CALLIGLYPTA, n. sp.

L. pexicolli minor et differt elytris, pygidio, corpore subtus cum pedibus castaneo-rufis nitidis; supra subtilius punctata. Gracile oblonga, convexior, capite thoraceque densissime et eleganter punctatis; elytris politis perparum rugoso-inæqualibus undique sat æqualiter punctatis, costa suturali (alta) alteris duabus discoidalibus minus distinctis, 4to submarginali angusta, lævioribus. Pygidium subconicum valde convexum æqualiter punctatum, politum. Subtus corpore medio cum pedibus polito sat crebre punctato. Unguiculi magis curvati, dente robusto supra medium sito. Long. 17½ millim.

Sze-chuen. Two examples, doubtless females.

The species is closely allied to *L. nubiliventris* (Bates) from Kulu, but differs *inter alia* in the dentition of the claws, the tooth in the Kulu species being slender, acute, situated below the middle, and inclined towards the base.

LACHNOSTERNA ÆQUABILIS, n. sp.

L. sinensi (Hope) et *L. castanea* (Waterh.) proxime affinis, ambobus differt thoracis angulis anticis breviter sinuato-truncatis. Oblongo castaneo-rufa supra glabra subnitida; capite thoraceque obscurioribus, sicut in *L. pexicolli* sculpturatis. Occiput carina transversali alta, acuta. Thorax angulis posticis omnino rotundatis, anticis breviter sinuato-truncatis. Elytra oblonga perparum ovoidea, convexa dense æqualiter punctulata, glabra absque rugulis et costis, costa suturali (antice et postice abbreviata) excepta. Subtus nitida pectore fulvo-villoso, abdomine et pedibus punctulato-pubescentibus

illo medio læviori. Pygidium parum convexum inæqualiter punctatum. Unguiculi basi dentato-dilatato, denteque robusto paullo supra medium sito. Antennæ 9-articulatæ, articulis 3—6 brevibus 5 et 6 intus acutis; clava (♂?) parva triphylla. Long. 20 millim.

Sze-chuen. In the closely allied *L. sinensis* from Eastern China, and *L. castanea* from Japan, the elytra have a smooth and slightly raised submarginal line, of which there is no trace in *L. æquabilis*. The lateral dilatation of the thorax is less angulated than in *sinensis*, but not so completely rounded as in *castanea*. The tooth of the claws is distinctly nearer the apex than in either of the allied species.

Lachnosterna protracta, n. sp.

L. longipenni (Blanch.) adhuc longior, magis cylindrica, supra sericeo-opaca purpureo-fusca, pruinosa, pedibus piceis, femoribus rufis, nitidis, ventro fulvo-rufo opaco, pectore fulvo-villoso. Unguiculi dente acuto valido, mediano. Antennæ 10 articulatæ, articulis 2—7 brevibus 4—6 intus angulatis, 7mo longius producto, clava ♂ sat elongata, ♀ breviori ovata. Pygidium sericeo-opacum disperse punctatum. Ventris segmentum apicale ♂ planum, ♀ convexum. Long. 23—26 millim., ♂ ♀.

An elongate, rather narrow, species, in some individuals cylindrical in shape, the upper surface silky opaque with a pruinose bloom, and purply reddish brown in colour. The head is thickly punctured, the clypeus very short, with sides strongly converging and rounded to the front, and the middle of the front edge strongly notched and reflexed. The thorax is of the same width as the elytra, rounded in the middle of the sides, the outer edge impressed by a series of pores, but not crenulated, the hind angles distinct, obtuse, the surface with thickly scattered umbilicated punctures. The elytra have similar but much more widely scattered punctures, and two or three very obtuse longitudinal costæ besides the usual sutural one; the lateral margins of the elytra are strongly biflexuous.

Lepidiota præcellens, n. sp.

L. tridens (Sharp) affinis et similis, sed major et conspicue differt thorace antice prolongato et angustato. Maxima, convexa, postice paullo ampliata, purpureo-fusca antice et subtus obscurior, mediocriter dense punctulata punctulis minute squamiferis. Long. 40 millim.

Sze-chuen. Two male examples.

Very similar to *L. tridens* (Sharp), which is found in the interior of Cambodia and Siam, but larger, and the thorax much longer, owing to the prolongation of the narrowing from the lateral angular dilatation to the front. The clypeus is larger, the sides being a little more broadly rounded. The lateral margin of the thorax is sharply crenulated. The elytra are vermiculate-rugose throughout; the anterior tibiæ armed, as in *L. tridens*, with three large and acute teeth. The under surface and legs are dull greenish black, the breast, both margins of the femora, and inner margins of the four posterior tibiæ, clothed with long foxy-red hairs. The abdomen is thinly clothed with minute pale scales. The antennal club is equal in length to joints 2—7.

Cyphochilus costulatus, n. sp.

C. candido (Oliv.) oblongior et convexior, supra squamulis grisescenti-albis ovatis densissime tectus, elytris utrinque costulis utrinque angustis quinque subdenudatis, limbo laterali verticali (inter costulam 5am et

marginem) adhuc densius squamulato, albo; mesosterno omnino inermi; partibusoris antennis ad pedibus rufis politis. Labrum valde asymmetricum. Subtus medio nigro-politus, lateribus squamulis griseis ovatis discretis tectus: pygidio squamulis elongatis densissimis. Antennarum clava (♀?) parva articulis 3—7 distincte brevior. Long. 26 millim.

Sze-chuen. Two examples.

Polyphylla gracillicornis, *Blanchard*, Compte Rendu d. l'Acad. Sci. Paris, 1871, tome 72, p. 811; Fairmaire, C. R. Ent. Soc. Belg. 1888, p. xvi.

Sze-chuen. Three examples; males.

Melolontha laticauda, n. sp.

M. umbraculatæ (Burm.) affinis sed multo latius oblongo-ovata, omnino sordide-fusca; clypeo semiovato; pygidio lato et brevi, postice minus angustato apice late truncato. Long. 28—30 millim.

Sze-chuen.

Belongs to the same group of *Melolontha* as *M. serrulata* (Schönh.) and *M. umbraculata* (Burm.), but the clypeus has the narrow semioval form of the latter species, whilst the general form of the body is different from both, being elongate-ovate, the sides of the elytra gently and tolerably evenly rounded from base to apex. The colour is obscure pitchy-brown, the surface opaque and densely clothed with foxy-reddish pubescence, which is a little longer and erect on the head, thorax, and scutellum, and recumbent on the elytra. The integument on the head, thorax, and scutellum is very densely punctate, the interstices everywhere narrow and somewhat reticulated; on the elytra the sculpture is much finer, and consists of minute transverse granular rugæ; the five longitudinal ribs on each elytron are very narrow and but slightly elevated, the sutural (or 1st rib) being a little more conspicuous. The under side is immaculate. The anterior tibiæ are tridentate. The examples appear to be all females, the seven-jointed club being small, with the 1st joint only about half the length of the others.

Fam. RUTELIDÆ.

Phyllopertha humeralis, *Fairmaire*, Ann. Soc. Ent. Belg. xxxi. p. 106.

Sze-chuen. Described from Yunnan specimens by M. Fairmaire.

Phyllopertha cribricollis, *Fairmaire*, Ann. Soc. Ent. Belg. xxxi. p. 105.

Sze-chuen. One example.

Anomala (Euchlora) coxalis, n. sp.

A. cribratæ (Blanch.) affinis, paulo major et differt colore toto viridi, coxis anticis rufescentibus exceptis, pygidioque apice utrinque rufo-translucenti. Long. 21 millim.

Sze-chuen. Two examples.

Broadly ovate, apple-green, only slightly shining in consequence of the uniform close and fine punctuation of the whole upper surface, the pygidium and the under surface being brilliant metallic-green. The palpi, antennæ, and anterior coxæ are red in part, with metallic-green reflections, and there is a faint trace of a reddish stripe on each side of the pygidium near the

apex. The thorax is rather strongly narrowed, with a slight sinuation in front, and the anterior angles are acute. The elytra have scarcely any traces of longitudinal lines, the lateral margin is not at all thickened, and the apex is obtusely rounded. The pygidium is densely and transversely undulate-rugose and asperated; the under side of the body faintly punctured, the sternum thinly clothed on the sides with reddish hairs.

MIMELA DULCISSIMA, n. sp.

M. glabræ (Hope) affinis. Multo major, ovata mediocriter elongata, supra lævis, pomaceo-viridis, carneo-lacteo relucens. Caput parum profunde dense punctulatum. Thorax disco lævis lateribus punctulatis utrinque foveola impressis. Elytra postice leviter ampliata minutissime et sparse lineatim punctulata. Pygidium læve, politum. Subtus cum pedibus cyanescenti-viridis metallica pectore sparsim piloso. Tarsi antici, ♂, unguiculo interiori robustiori dorso medio brevissime dentato. Mesosternum breviter (vix ultra coxas) productum. Long. 21 millim.

Sze-chuen. Agrees very well with Hope's description of *M. decipiens*, which, however, according to Burmeister, who appears to have examined the type specimen, has an elliptical form and long mesosternal process.

MIMELA SPLENDENS, *Gyll.*, in Schönh. Syn. Ins. i. 3 app. p. 110; Burm. Handb. d. Ent. iv. 2, p. 506 (nec *M. splendens*, Burm. iv. 1, p. 288). *M. lucidula*, Hope, Trans. Ent. Soc. i. (1835), p. 113; Burm. Handb. iv. 1, p. 287. *M. simplex*, Bates, Proc. Zool. Soc., 1866, p. 345.

Sze-chuen. A widely-distributed species: in China, Corea, Japan, and the Island of Formosa.

SPILOTA PLAGIICOLLIS, *Fairm.*, Ann. Soc. Ent. Fr. 1886, p. 329; var. *Anomala* (*Paraspilota*) *impicta*, Bates, Proc. Zool. Soc. 1888, p. 374.

Sze-chuen (Yunnan, Fairmaire). *A.* (*Paraspilota*) *impicta*, from Korea, is certainly only a variety of this species, in which the under surface is chiefly testaceous-yellow, and the thorax generally immaculate.

ANOMALA (EUCHLORA) MILLESTRIGA, n. sp.

A. solidæ (Erichs.) quoad formam similis. Breviter ovata viridis haud metallica elytris postice plus minusve thoraceque margine anguste flavo-translucentibus, antennis et palpis fulvo-rufis. Caput crebre (clypeo confluenter) punctatum. Thorax undique punctatus sed politus. Elytra minute punctata et latera versus transversim strigulosa, plus minusve distincte striato-punctata nec costata, margine laterali (♂ ♀) tenui. Tarsi antici unguiculo interiori ♂ intus medio dilatato-dentato, ♀ recto. Pygidium viridi-metallicum dense asperato-rugulosum, apice utrinque indistincte flavo-maculato. Subtus saturate viridis, interdum virido-æneo metallica. Long. 17—18 millim., ♂ ♀.

Sze-chuen.

ANOMALA (APROSTERNA) CASTANEIPENNIS, *Fairm.*, Comptes Rend., Soc. Ent. Belg. 1891, April, p. 18.

Sze-chuen. M. Fairmaire's examples were from Kiu-Kiang and Shanghai.

Popilia chrysitis, n. sp.

P. cæruleæ (Boh.) varietatibus cupreis similis sed major elytrorumque striis multo magis irregularibus. Cupreo-aurata splendida, capite thoraceque certo situ viridi-auratis; elytris utrinque prope scutellum profunde foveatis, valde punctulato-striatis, interstitiis 4 et 6 subcostatis, 5 transversim angulato; pygidio sparse striguloso, ♂ gibbo, ♀ mediocriter convexo, basi maculis duabus griseo-pilosis. Caput dense (postice sparsius) punctulatum. Thorax disco fere lævis subtiliter sparse punctulatus. Subtus viridi-aurata; pectore griseo-villoso, ventris segmentis quinque utrinque medio dense griseo-fimbriatis. Mesosterni processus validus. Long. 13—14 millim.

Sze-chuen.

Popilia virescens, *Hope*, Gray, Zool. Misc. p. 23; Burm. Handb. d. Ent. iv. 1, p. 302.

Sze-chuen. Hope's specimens were from Nepaul; and I have seen others from Assam.

The thorax varies in colour, as usual in this genus, from brassy-green to coppery. The hind angles are generally rectangular, with slightly sinuated lateral margin near the angle, but sometimes they are a little more obtuse. The elytra are pale testaceous, with a brassy-green tinge, the striæ punctured, and the interstices 1, 4, and 6, only, convex.

Fam. CETONIIDÆ.

Dicranocephalus adamsi, *Pascoe*, Journ. of Ent. ii. 1863, p. 25; Lucas, Ann. Soc. Ent. Fr. 1876, p. 284, pl. 14, f. 4, 5. *Dicranocephalus dabryi*, Auzoux, Ann. Soc. Ent. Fr. 1869, Bull. p. 4.

The example described and figured by Lucas of this species is a small male of minor development; and Pascoe's description implies that he had not before him the full development of the male of the species. In a small series, taken by Mr. Pratt, there are, besides minor males similar to the figure of Lucas, specimens of full development, which show that the species differs from both *D. wallichii* and *D. bowringii*, not only by the black tarsi and polished vittæ (not carinæ) of the thorax, but by the greater length of the clypeal horns, and especially the far greater length and stronger vertical curvature from the lateral tooth to the bifid apex, in which latter the inner cusp is very much smaller, and situated lower down than the outer. The thorax approaches more nearly a circular figure than in the two other species. The colour of the upper surface is ashy-white. The female differs from the male (besides the secondary sexual characters) in colour, being wholly dull black, nearly opaque, and with naked integument, very minutely strigulose on the elytra and punctulate on the thorax, which is also sprinkled with larger punctures. The elytra have a glossy humeral and apical callus, strongly punctured. The thorax has scarcely any trace of dorsal raised vittæ. The head is of nearly the same form as in *D. wallichii*, ♀.

Rhomborhina rufitibiis, n. sp.

R. dives (Westw.) proxime affinis; differt *inter aliis* tibiis fusco-castaneis. Elongata postice minus angustata, suprà et subtus pallide viridis carneo-opalescenti relucens; antennis piceo-nigris nitidis, tibiis castaneo-fuscis, tarsis nigris vel fuscis. Clypeus antice dilatatus crebre granulatus. Thorax toto minutissime punctulatus, punctisque majoribus sparsis. Elytra minus distincte minute punctulata lineis-geminatis interstitiisque extus punctatis,

versus apicem transversim rugulosa. Coxæ posticæ intus contiguæ. ♂. Tibiæ anticæ extus apice recte prolongatæ ante apicem dente parvo distincto; mesosternum linea centrali parum impressa, ventro medio haud sulcato. ♀. Tibiæ anticæ extus apice bidentatæ. Long. 30—34 millim.

Sze-chuen. Two examples. The armature of the anterior tibiæ in the sexes resembles that of *R. unicolor* (Motsch.), and not *R. dives*, which the species resembles most in other respects.

Rhomborhina japonica, *Hope*.
Rhomborhina nigra, *Saunders*.
Rhomborhina olivacea, *Janson*.

These three species, well-known from North-eastern China and Japan, were also met with by Mr. Pratt in Sze-chuen.

Fam. CERAMBYCIDÆ.

Cerambyx scabricollis, *Chevrolat*, Rev. Zool. 1852, p. 416.

Sze-chuen. Found also at Hong-Kong.

Mallambyx japonicus, *Bates*, Ann. Mag. xii. 1873. *Neocerambyx raddei*, Blessig, Hor. Soc. Ent. Ross. ix. p. 190.

Sze-chuen. The species is hitherto known only from the more northern localities, Japan and the Amur.

Aromia bungii, *Faldermann*, Mém. Ac. Petrop. 1835, ii. p. 433, pl. 5, f. 5.

Sze-chuen.

Xylotrechus chinensis, *Chevrolat*, Rev. Zool. 1852, p. 416.

Sze-chuen.

Fam. LAMIIDÆ.

Melanauster glabripennis, *Motsch.*, Etud. Ent. 1853, p. 48.

Sze-chuen.

Melanauster pirouletii, *Fairm.*, Ann. Soc. Ent. Fr. 1889, p. 66.

Sze-chuen. Three examples; a very distinct species.

Monohammus millegranus, n. sp.

Griseo-niger vel niger tenuiter griseo-tomentosus, thorace et elytris passim æqualiter nigro-granulatis, capite toto aspero-punctato; fronte inter antennas sat anguste concava, antennis concoloribus, in ♂ corpore paullo longioribus, in ♀ brevioribus, scapo mediocri, sparsim punctato, articulis 3 et 4 (♂) paullo crassioribus cylindricis. Tibiæ intermediæ extus leviter tantum sinuatæ. Long. 17 millim.

Sze-chuen.

A small *Monohammus*, distinguished from all others known to me by the thorax, and especially the elytra, being closely studded with shining granules, and without perceptible punctuation.

COLEOPTERA FROM CENTRAL CHINA AND THE KOREA.

By Rev. H. S. Gorham, F.Z.S., F.E.S.

In the 'Proceedings' of the Zoological Society for 1889, p. 96, some account of the Malacodermata, collected by Mr. A. E. Pratt at Kiu-kiang, and by Mr. Leech in the Korea, will be found. In continuation, I now give a complete list of the Cassidæ, Erotylidæ, Endomychidæ, and Coccinellidæ of the same collection. The latter is the only one of these groups in which the number of specimens was at all extensive, and among them are several new species of interest, besides very long series of one or two very variable species.

Fam. CASSIDÆ.

1. Prioptera satrapa, *Boh.*, Mon. Cass. iv. p. 20.

China, Kiu-kiang (*Pratt*).

2. Prioptera whitei, *Boh.*, Mon. Cass. iv. p. 17.

Kiu-kiang (*Pratt*).

3. Cassida sp. ?.

Kiu-kiang (*Pratt*).

A single example of a yellow *Cassida;* the thorax and elytra with numerous black markings.

4. Cassida sp. ?.

Fuchau (*Leech*).

Two examples of a *Cassida* allied to *C. obsoleta.*

5. Coptocycla biramosa, *Boh.*, Mon. Cass. iii. p. 418.

Satsuma (*Leech*).

A single example. Occurs also in Japan and at Penang.

Fam. EROTYLIDÆ.

6. Megalodacne bellula, *Lewis*, Ent. Mo. Mag. xx. (1883), p. 139.

Japan (*Lewis*) ; Nemoro (*Leech*).

This species is interesting, because it exhibits affinity with the North American *M. heros.*

7. Eutriplax tuberculifrons, *Lewis*, Ann. Nat. Hist. xx. pp. 72 and 342 [*Eudœmonius.*]

Japan (*Lewis*) ; Nemoro (*Leech*).

Fam. ENDOMYCHIDÆ.

8. Ancylopus melanocephalus, *Oliv.*

Nagasaki (*Leech*).

9. Saula japonica, *Gorh.*, Ent. Mo. Mag. x. (1873), p. 224.
Saula fuscicornis, Fairm., Ann. Soc. Ent. Fr. viii. p. 378.
Nagasaki (*Leech*) ; Annam.
These species are identical.

Fam. COCCINELLIDÆ.

10. Lioadalia lenticula, n. sp.

Nigra, nitida, capite albido, ore margineque basali nigro, prothorace angulis anticis, et linea mediana (postice abbreviata) flavis; elytris maculis sex luteis, duabus basalibus, una juxta scutellum, una subhumerali oblonga; una marginali post medium, una prope apicem, et duabus discoidalibus. Tibiis tarsisque obscure flavis. Long. 5½ millim.

Hab. China: Kiu-kiang (*Pratt*).

Of the form and size of *L. luteopicta*, Muls., and rather nearly allied to both it and *L. intermedia*, Crotch. Oblong-ovate, black, shining; punctuation very close and fine, but quite distinct, especially on the elytra. The front of the head is whitish yellow, but the front margin and mouth, and the basal portion (indented in the middle), are black. The thorax has the front angles occupied by a squarish spot and a fine central line, extending half across from the front. The elytra have each six round spots, luteous yellow; of these the three inner ones are nearly parallel to the suture, the three outer ones are marginal; the basal one of these occupies the humeral angle, the apical one does not quite reach the sutural angle, and the intermediate one is a little behind the middle; these three are larger and not so regular in shape as the inner spots. The antennæ, tibiæ, and tarsi, and the epipleuræ, are yellow, but the latter are blackish where the dark ground colour of the elytra meets them.

Two specimens.

11. Coccinella septempunctata, *Linn.*
Korea: Gensan (*Leech*), Satsuma.

12. Coccinella bruckii, *Muls.*
Japan: Hakodate, Nagasaki, Fuchan (*Leech*).

13. Coccinella repanda, *Thun.*, *Muls.*
Fuchau (*Leech*).

14. Leis quindecim-maculata.
Coccinella 15-*maculata*, Hope, Zool. Misc. p. 30.
Fuchau (*Leech*).

15. Ptychanatis axyridis.
Coccinella axyridis, Pall. Reis. Russ. ii. p. 726 (1773) ; Muls. Spec. Col. Trim. secur. p. 266 (*Leis*).
Ptychanatis axyridis, Crotch, Revis. p. 123.
China: Kiu-kiang (*Pratt*). Korea: Gensan (*Leech*); Fuchau, Satsuma (*Leech*). Japan: Nagasaki (*Leech*).
About three hundred examples of this insect were collected

by Messrs. Leech and Pratt, among which the following varieties occur:—

a. Elytra luteous, spotless; thorax with four or five dots forming a sort of M. This variety is very abundant at Kiu-kiang, and occurred also at Gensan.

β. Like *a*, but elytra with one dot near the margin. Gensan.

γ. Like *a* and *β*, but the elytra with from three to ten dots; the thoracic spots often united to form a broad M. China, Kiu-kiang; Korea, Gensan.

δ. Elytra distinctly maculate, with nine spots placed 2, 3, 3, 1, or ten, the apical one being double; in this form the disk of the thorax is often black. China, Kiu-kiang; Korea, Gensan.

ε. Elytra black, with one red blotch; thorax black, with broadly white sides. China, Kiu-kiang, Fuchau; Korea, Gensan. This variety is often very difficult to separate from *Cœlophora saucia*, which occurs with it, especially if the specimen has not the elytra with the subapical fold, which, when present, will always serve to distinguish this insect from its near superficial allies.

ζ. Like *δ*, but the red blotch encloses a black dot. Less common, but specimens occur at Fuchau, Kiu-kiang.

η. Like *δ* and *ζ*, but with a second red blotch near the apex. Common at Kiu-kiang, and also occurred at Nagasaki and at Fuchau with *Chilomenes 4-plagiata*, to which it, perhaps, affords "protective resemblance."

Accidental rare varieties occur; one very beautiful one from Kiu-kiang seems to be formed from the var. *η* by the union of the two red blotches, the elytra being black, with one large discoidal red patch occupying the whole disk, but leaving the base and the scutellar region broadly, and the suture and margin narrowly, black.

16. Thea cincta.

Coccinella cincta, Fabr. Ent. Syst. Suppl. p. 77.
Psyllobora cincta, Muls. Spec. Col. Trim. sècur. p. 167.
Thea cincta, Crotch, Rev. Cocc. p. 135.

Fuchau (*Leech*). One specimen.

17. Cœlophora saucia.

Leis calypso, Muls. Mon. Cocc. p. 186.
Lemnia saucia, Muls. Spec. Col. Trim. sècur. p. 380.
L. oculata, Muls. *loc. cit.* p. 385 (nec Fab.).

Fuchau (*Leech*); Kiu-kiang (*Pratt*); Satsuma (*Leech*).

This insect is very difficult to distinguish from some varieties of *P. axyridis*. The following points will often, however, assist in the identification: It is a more orbicular form, and has the sides of the elytra more expanded; the round red spot is placed further back. There is never a subapical fold.

18. Cœlophora bisellata, *Muls.* Spec. Col. Trim. sècur. p. 400.
Fuchau (*Leech*).

19. Cœlophora biplagiata.

Coccinella biplagiata, Schön. Syn. Ins. ii. p. 196.
Lemnia biplagiata, Muls. Spec. Col. Trim. sècur. p. 383.
Cœlophora biplagiata, Crotch, Rev. Cocc. p. 149.

Fuchau (*Leech*). One specimen.

20. Propylea conglobata.

Coccinella conglobata, Linn. Syst. Nat. p. 366 (1758).
C. 14-*punctata*, Linn. *loc. cit.*

Japan: Nagasaki. Korea: Gensan (*Leech*).

Var. *Harmonia ambitiosa*, Muls. Mon. Cocc. p. 72.

China: Fuchau. Korea: Gensan (*Leech*).

This variety, which has the elytra yellow, with only two basal spots and the suture black, or with the suture and four spots black, does not, as far as I have seen, occur in Europe or Siberia.

21. Verania discolor.

Coccinella discolor, Fab. Ent. Syst. Supp. p. 77 (1798).
Verania discolor, Muls. Spec. Col. Trim. sècur. p. 369; Crotch, Rev. Cocc. p. 176.

Fuchau (*Leech*).

22. Chilomenes quadriplagiata.

Coccinella 4-*plagiata*, Schön. Syn. Ins. ii. p. 195.
Cheilomenes 4-*plagiata*, Muls. Spec. Col. Trim. sècur. p. 447.

Fuchau (*Leech*).

23. Chilocorus chalybeatus, n. sp.

Nigro-cæruleus, nitidissimus, pectore abdomineque ferrugineis; elytris subcæruleis, crebre distincte punctatis, macula rotundata discoidali sanguinea. Long. 6 millim.

Hab. China: Kiu-kiang (*Pratt*).

Allied to *Chilocorus cacti*, rather smaller than average specimens of that species, and with the red elytral spot much smaller than usual in *C. cacti*. It is also to be distinguished by the distinct punctuation, as well as by the blue tint, which is especially noticeable on the elytra. The margin of the elytra is expanded to about the same degree, or perhaps a little more than in *C. cacti*.

Many examples of this pretty *Chilocorus* were captured by Mr. Pratt.

24. Epilachna insignis, n. sp.

Rufo-ferruginea, prothorace macula transversa discoidali; elytris singulis maculis magnis septem, et metasterni lateribus nigris. Long. 10—11 millim.

Hab. China: Kiu-kiang (*Pratt*).

Very like *E. admirabilis*, Crotch, but much larger, and in

place of the single humeral spot in that species there are here two large spots, one touching the base between the scutellum and the callus, the other below the callus and nearer the apex. The two sutural spots, which in *E. admirabilis* form two spots common to both elytra, are here almost, but not quite, distinct, and the hinder pair are each pear-shaped. The punctuation is coarser than in *E. admirabilis*, and the sculpture becomes variolose near the central spot; there is a costa, often very well defined, running from the callus to the middle of the elytra. The thoracic spot does not touch the base, as it does in *E. admirabilis*.

About a dozen of this handsomely marked *Epilachna* were obtained.

25. Epilachna dumerili, *Muls.* Spec. Col. Trim. sècur. p. 801.

China: Kiu-kiang (*Pratt*).

Two specimens, agreeing very nearly with *E. flavicollis* or *E. incauta*, which appear to me to be only varieties of one insect.

26. Epilachna 28-punctata.

Coccinella 28-*punctata*, Fab., Syst. Ent. p. 34 (1775).

Japan: Hakodate, Shimonoseki. Korea: Gensan (*Leech*).

Taken abundantly. The specimens are mostly fine ones, and typically marked, the thorax usually with three wedge-shaped black marks; sometimes, however, the whole disk is black.

E. 28-*punctata*, var.

Formosa (*Leech*). A small variety, suffused and with the spots very indistinct in the general dark ground colour. Probably a great number of so-called species, including *E.* 26-*punctata*, will eventually be united as one morphological species.

DESCRIPTIONS OF SOME NEW SPECIES OF PHYTOPHAGOUS COLEOPTERA, AND SYNONYMIC NOTES.

By Martin Jacoby, F.E.S.

Heteraspis viridis, n. sp.

Bright metallic-green, clothed with dense white pubescence; antennæ blackish, the basal joints metallic; thorax closely rugose-punctate; elytra densely punctured, the interstices transversely wrinkled anteriorly. Length, 4 lines.

Subquadrate-ovate, of a pale metallic-green; the head strongly and rather closely punctured, the epistome not separated from the face; labrum metallic-green, its anterior edge trisinuate; basal joints of the palpi fulvous; mandibles black; antennæ extending to about one-third the length of the elytra, the five or six basal joints more or less metallic-greenish, the rest black but slightly thickened; thorax nearly twice as broad as long, the sides straight, gradually widened towards the apex, the surface densely rugose-punctate and thickly clothed with long white hairs, the anterior angles with a smooth tubercle; elytra much wider than the thorax, subquadrate; the shoulders prominent, the surface more strongly punctured than the thorax; the interstices also closely punctured and transversely rugose, pubescent like the thorax; intermediate tibiæ strongly emarginate at the apex.

Hab. Birmah.

Although *H. viridis* is very closely allied to *H. hirta*, Fab., there are constant specific differences. The tender metallic-green colour, the very fine yet dense white pubescence which gives the species a mouldy appearance, and the densely punctured thorax and elytra, principally distinguish the present species. (Coll. *Jacoby*.)

Nodostoma indicum, n. sp.

Metallic-green; the head, basal joints of the antennæ, and the thorax fulvous; head and thorax subremotely punctured; elytra bright metallic-green, finely punctate-striate, the base convex; tibiæ and tarsi dark piceous. Length, 1¾ line.

Head strongly but not closely punctured, the epistome not separated from the face; palpi flavous, the apical joint black; antennæ long and slender, black, the lower four joints fulvous or flavous; thorax twice as broad as long, narrowed in front, the sides very obtusely angulate below the middle, the surface remotely but strongly punctured, the anterior transverse sulcus distinct at the sides only; elytra broader at the base than the thorax, the basal portion raised, deeply transversely depressed below, the punctures very deep within the depression, much finer posteriorly, the striæ rather widely separated; femora with a minute tooth; abdomen darker than the breast.

Hab. Birmah.

Allied to *N. fulvipes*, Motsch., but of a very bright green colour, and with differently coloured legs, &c. (Coll. *Jacoby*).

Nodostoma multicostata, n. sp.

Very dark bronze-coloured; the head sparingly punctured; the thorax coarsely rugose-punctate, the sides scarcely angulate; elytra deeply punctate-striate, the interstices longitudinally costate. Length 1½ line.

Of blackish bronze colour; the head deeply but not closely punctured, the epistome separated from the face by an obsolete transverse groove, strongly rugose; palpi fulvous; antennæ slender, black, the lower four joints fulvous; thorax twice as broad as long, the sides obsoletely angulate at the middle, the surface very coarsely and deeply punctured, the interstices very strongly rugose, with a central (sometimes indistinct) smooth longitudinal space; elytra very deeply punctured, with about nine strongly raised longitudinal costæ, those below the shoulders rather oblique; under side and legs black; tarsi somewhat paler; femora with a very minute tooth.

Hab. Sumatra.

The very dark colour and the numerous elytral costæ principally separate this species from its many allies. (Coll. *Jacoby*.)

NODOSTOMA APICIPES, n. sp.

Fulvous; the apical joints of the antennæ, the apex of the tibiæ, and the tarsi black; thorax angulate near the base, very closely punctured at the sides, more distantly at the disc; elytra metallic-greenish or æneous, with basal depression, strongly punctate-striate; anterior femora dentate.

Var. Piceous below; the head, antennæ, thorax, and legs black. Length, 2—2¾ lines.

Head very finely punctured at the vertex, more closely and strongly so between the eyes, dark fulvous (sometimes stained with piceous); antennæ slender, the lower four joints fulvous, the rest black; thorax twice as broad as long, the sides subangulate near the base, strongly obliquely narrowed in front, the submarginal groove deep, the surface very closely and strongly punctured at the sides, much more finely and remotely at the middle, the space near the anterior margin nearly impunctate; scutellum fulvous; elytra slightly wider at the base than the thorax, the base convex, bounded by a deep depression below, the punctuation strong anteriorly, much finer towards the apex; under side and legs fulvous, the apex of the tibiæ and the tarsi black; anterior femora with a distinct tooth.

Hab. Sumatra, also Birmah.

The sculpture of the thorax and the colour of the tibiæ and tarsi principally distinguish this species, especially from *N. fulvipes*, Motsch.; the punctuation of the thorax in all the specimens is the same; the variety does not differ except in its larger size and colour, but the head is also fulvous anteriorly. (Coll. *Jacoby*).

THEOPEA NIGRICOLLIS, n. sp.

Black; the three apical joints of the antennæ (the apex of the last joint excepted) testaceous; thorax quadrate, deeply bifoveolate, impunctate; elytra violaceous, transversely punctate, the interstices longitudinally costate. Length, 3 lines.

Head impunctate, black, the frontal tubercles strongly convex; antennæ black, the ninth, tenth, and the base of the terminal joint pale flavous, the sixth to the eighth joints slightly compressed and widened in the male; thorax not broader than long, black, shining, the disc with a very deep fovea at each side, impunctate; scutellum black; elytra violaceous, closely impressed with double rows of transversely-shaped punctures, the interstices longitudinally costate; under side and legs black, shining.

Hab. Borneo, Perak, also Birmah.

T. nigricollis, although closely allied to *T. pulchella* and *T. elegantula*, Baly, differs from either in the black and quadrate thorax in connection with the pale apical joints of the antennæ,

which have their intermediate joints scarcely widened and of equal length. I possess several specimens from the above localities.

ARCASTES SANGUINEA, n. sp.

Bright reddish; the antennæ, tibiæ, and tarsi black; the thorax very minutely punctured; elytra finely rugose or wrinkled, and very closely punctured. Length, $2\frac{3}{4}$—3 lines.

Elongate and rather convex, bright blood-red; the head impunctate, with a deep transverse groove between the eyes, the frontal tubercles strongly raised, nearly contiguous; palpi piceous; antennæ robust, black, pubescent, the intermediate joints widened; thorax one-half broader than long, the sides rounded at the middle, narrowly margined, the anterior angles oblique, the surface microscopically punctured; elytra wider than the thorax, the entire surface finely rugose and wrinkled, the interstices very finely and closely punctured; under side and the femora red; the tibiæ and tarsi black, the posterior tibiæ with a long spine; the first joint of the posterior tarsi half the length of the tibiæ.

Hab. Perak. (Coll. *Jacoby*.)

SERMYLOIDES DILATICORNIS, n. sp.

Ovate-oblong, fulvous; elytra black; thorax impunctate, narrowly transverse; elytra black, closely, irregularly, but distinctly, punctured.

Var. Elytra with the sutural portion more or less fulvous.

♂. Antennæ with the third, fourth, and fifth joints broadly dilated. Length, 3 lines.

Head impunctate, the extreme vertex more or less piceous, lower portion of the face flattened; palpi incrassate: antennæ extending to about half the length of the elytra, black, the first joint fulvous, slender, the second short, the following three joints broadly dilated, the rest shorter; thorax short, three times broader than long, the sides nearly straight, the angles not prominent, the surface impunctate, fulvous; scutellum black; elytra rather strongly, closely, and irregularly punctured; under side and legs fulvous. the first joint of the posterior tarsi longer than the following three joints together; claws appendiculate; anterior coxal cavities closed.

Hab. Sumatra.

In general shape and structural characters the present insect agrees with the other two species placed in this genus, but differs entirely in the dilated joints of the antennæ in the male, the same organs being, however, simple in the other sex. (Coll. *Jacoby*).

MACRIMA ABDOMINALIS, *Jac.*

Of this species, described by me in the 'Notes Leyden Mus.' (vol. vi.), I have lately received some specimens obtained at Perak and at Borneo; those from the former locality seem to agree with the type, some specimens having, however, a narrow flavous stripe surrounding the scutellum, while others have the extreme sutural margin black. The Bornean examples differ, however, from the type in having a longitudinal black sutural and lateral band, extending not quite to the apex. I am unable to detect any other structural differences than those of colour, and it is therefore probable that the type was described from unicolorous fulvous varieties.

DESCRIPTIONS OF SOME NEW SPECIES OF AFRICAN LEPIDOPTERA.

By W. J. Holland, Ph.D., F.E.S., Pittsburgh.

A large collection of African lepidoptera, made by Dr. W. L. Abbott in Eastern Africa during the year 1888, has been placed in my hands for determination by the authorities of the U. S. National Museum. The paper in which a full account will be published may be delayed for some time, and I therefore avail myself of the permission accorded me by Prof. C. V. Riley, the Curator of the Entomological Department, to publish diagnoses of the species I have described as new. In the prosecution of my studies upon this collection, I am much indebted to Mr. A. G. Butler, of the British Museum, and Mr. H. Druce, to whom I desire to extend my thanks for the courtesies they have shown me. The types are in the U. S. National Museum.

RHOPALOCERA.

Genus Acræa, *Fab.*

A. pharsaloides, sp. nov.

Much like *Pharsalus*, Ward. Differs in having transapical band of primaries fulvous, and not interrupted with white spots. A large quadrate black spot from costa of primaries, covering end of cell, and extending to second submedian. Ground colour fulvous; in *Pharsalus*, fuscous.

Hab. Kilimanjaro.

A. minima, sp. nov.

Allied to *Eponina*, Cram., but one-third smaller; in fact the smallest *Acræa* thus far known. The cell of primaries is not traversed longitudinally by a scarlet ray, as in *Eponina*. Scarlet band of secondaries strongly angulated opposite cell. On the under side more or less ochreous. Secondaries ornamented with narrow band of black spots, fused, and forming a straight line before base. Some triangular white spots on outer margin.

Female very like the male, but under side of wings broadly fuscous. Expanse of wings, ♂ 27 mm., ♀ 36 mm.

Hab. Taveta?

A. abbottii, sp. nov.

Allied in some particulars to *A. cabira*, Hopffer, but widely different.

♂. *Upper side.*—Anterior wings pale ochreous, with the base, the cell, except a small triangular space at its lower edge near its outer end, the costal margin, the apex, and the outer margin, broadly black. The ground colour is disposed in the form of an oval subapical spot, and a broad discal band parallel to the outer margin. The inner margin of the black apical area is minutely excised just above the origin of the second median nervule, and just below there is a round black spot. The black of the basal part of the wing is extended in the form of a narrow streak for a short distance between the median and the submedian nerves. The secondaries are broadly pale ochreous, of the same tint as the primaries, with the outer margin broadly and evenly bordered with black. There is a small black spot on the costa near

the base, and another near its middle, followed beneath by two minute spots, the three forming a short transverse series. *Under side.*—The base, the costal margin, and the outer margin of the primaries are greyish fuscous. The nervules at their extremities are shaded with blackish, and between them there is a series of marginal greenish ochreous triangular spots, the apices of which pointing inwardly are surmounted each with a short blackish ray or dash. A narrow black line crosses the cell near its middle, and at its end there is a broad subapical bar of black, which extends from the costa where it is widest about two-thirds of the distance to the outer margin, and is slightly excised upon its inner margin. The secondaries are bordered with black as upon the upper surface, and have a marginal series of whitish triangular spots upon the interspaces, and a few small black spots near the base, *viz.*, upon the costa, one at the base, one just beyond it, and one at the middle, one in the middle of the cell, and five or six quite small ones disposed in a semicircular series near the middle of the inner margin. The body is black, spotted with yellow; the antennæ are black. The lower side of the palpi and of the thorax and abdomen are pale grey.

♀. The female does not differ materially from the male, except that upon the upper side there is an additional black spot situated between the submedian and first median nervule, and the small spots upon the costal area of the secondaries are obsolete, except the two immediately upon the costa. The under side is as in the male, with the exception of the presence of the additional spot between the submedian and the first median nervule. Expanse of wings, ♂ 38 mm., ♀ 45 mm.

Genus Lycæna, *Fabr.*

L. perpulchra, sp. nov.

Upper surface pale lilac, dark grey at base, with spots of under surface reflected through. Fringe black. Red spot pupilled with black between first and second submedian of secondaries. Under side uniform pale lilac-grey. Fringe black. Submarginal band of subsagittate brown marks upon both wings. At anal angle of secondaries black spot slightly irrorated with blue scales, and between first and second submedian nervules a larger spot, pupilled with blue scales. At end of cell in both wings a curved black streak. Five large black discal spots upon primaries, three similar spots at base of secondaries, and eight large spots, forming a longer and shorter loop at sixth spot, which is situated just beyond black streak at end of the cell. Expanse of wings, 40 mm.

Genus Chrysophanus, *Hübn.*

C. abbottii, sp. nov.

The markings of the anterior wings upon the upper surface are much as in *C. phlæas*, L.; the markings of the posterior wings upon the same surface recall those of *C. ochimus*, Herr.-Schæff., ♀, or of *C. thersamon*, Esp., ♀.

♂. *Upper side.*—Anterior wing: the apex of the wing is more acute than in any other species of the genus thus far described. The colour is bright metallic orange-red, inclining very slightly to dusky at the base. The costa beyond the middle is very narrowly edged with blackish, the outer margin is evenly bordered with a band of black of moderate width, the body of the wing is adorned by spots of deepest black, arranged as follows:—one on the cell, one at the end of the cell, four below the costa coalescing as a subapical band, a pair disposed upon the interspaces between the median nervules, and a quadrangular spot near the outer angle between the first median nervule and the submedian nerve. Posterior wing: the ground colour is the same metallic red which prevails upon the fore wing, inclining

very slightly near the outer margin to opaque scarlet. The base and the inner margin are somewhat densely adorned with a vestiture of dusky hair. The costal margin is heavily bordered with black, and the outer margin very narrowly with the same colour. There is a row of small marginal spots disposed upon the interspaces and fusing with the narrow outer border, and causing the red area of the wing within to have a scalloped or crenelated appearance. In addition to these markings there is at the end of the cell a dusky bar, beyond the cell an interrupted transverse series of spots, one near the costa, in some specimens fusing with the dark costal margin, two opposite the cell, a pair upon the interspaces of the median nervules, and a pair upon the inner margin, more or less obscured by the dusky hairs which clothe the base. There is in addition a submarginal row of black spots, forming a regular series, conformed in the line of curvature with the outer margin of the wing. *Under side.*—Anterior wing: the under side of the anterior wing differs from the upper side in that the black margin of the outer edge of the wing is lacking, being simply represented by three obsolescent spots, one at the outer angle, and two situated between the median nervules. The black spots of the basal and limbal areas of the wings reappear upon the lower side, and are larger and more distinct than upon the upper side, not coalescing at all, and each being surrounded by a faint bluish white line. Posterior wing: the posterior wing is heavily dusted with dark ferruginous scales, and the markings of the upper side reappear very obscurely upon this side.

♀. The female does not differ from the male, except that she is lighter in colour, and the markings somewhat less distinct. Expanse of wings, 27—28 mm.

Genus Terias, *Swains.*

T. mandarinula, sp. nov.

Recalling *T. mandarina*, De L'Orza, one of the autumnal forms of *Terias hecabe*, Linn., as developed in Japan.

♂. *Upper side.*—Lemon-yellow. The primaries have the apical margin of the costa and the outer margin, as far as the first median nervule, bordered narrowly with brown, darkest at the tips of the nervules. There is also a small black spot at the inner angle. The secondaries have six minute black spots at the tips of the nervules, but the submedian nervule is not thus ornamented in any of the specimens before me. *Under side.*—Primaries and secondaries have the ends of the nervules tipped with brown. There is a black spot in the middle and one at the end of the cell in the primaries, and a number of waved and broken lines upon the secondaries.

♀. The female is paler, and the markings are less distinct. Expanse of wings, 35 mm.

Three males and two females are included in the collection.

HETEROCERA.

Family LITHOSIIDÆ, *H.-S.*

Genus Sozuza, *Wallgr.*

S. stevensii, sp. nov.

♂. Front, antennæ, and eyes black. Top of head, collar, tegulæ, thorax, abdomen, and anterior wings, pale grey. Posterior wings lighter grey. Anterior wings narrowly margined upon costa with black. The under side is much as the upper, save that the anterior wings are shaded with blackish beneath. Expanse of wings, 44 mm.

One example from Kilimanjaro.

I name this species in honour of Mr. Stevens, the bicyclist, who accompanied Dr. Abbott upon his journey to Kilimanjaro.

Family ARCTIIDÆ, *Steph.*

Genus SPILARCTIA, *Butl.*

S. ABBOTTI, sp. nov.

♂. Head, thorax, body, and anterior wings, luteous. The five posterior segments of the abdomen are banded with black on the upper side. *Upper side.*—The anterior wings have three minute black spots before the base, two poorly defined spots at the end of the cell, a submarginal bifurcating series of minute spots near the apex, and a small marginal spot at the end of each nervule. All of these spots are black. The posterior wings are white and semidiaphanous, with a minute black spot at the end of the cell. *Under side.*—The wings upon the under side are white, shading into luteous upon the costa of the primaries. The spots of the upper side disappear upon the lower side, or are very faint, except the spots at the end of the cell, which are much larger than upon the upper surface, and, coalescing, form a bold comma-shaped mark, and the two spots of the inner branch of the bifurcating submarginal series, which are nearest the costa of the primaries, which are relatively larger and conspicuous, especially the one next to the costa. Expanse of wings, 31 mm.

Genus ALPENUS, *Walk.*

A. TRI-FASCIATA, sp. nov.

♂. Antennæ, eyes, and front, black. Collar, patagiæ, and thorax, very pale ashen. Abdomen yellowish, with a row of seven small black spots on top, and similar series on the sides. Legs margined with black on upper side. The anterior wings are pale ashen, and have three transverse macular bands,—one near the base, one at the end of the cell, and one on the limbal area, all of which are sharply angulated just at the region of the median nervule, and the spots are here produced as lines along the nervules. The spots composing these bands are largest on the costa and upon the inner margin. The posterior wings have a spot at the end of the cell, and one near the outer angle, and another near the anal angle. The under side is somewhat darker than the upper side, and almost all of the spots of the upper surface are obliterated, or only faintly reappear. Expanse of wings, 30 mm.

Hab. Kilimanjaro.

Genus TERACOTONA, *Butler.*

T. CLARA, sp. nov.

♂. Tibia of fore legs bright pink. Head and thorax very rich, dark brown. Metathorax clothed with long pinkish hairs. Abdomen pale brown, annulated and spotted upon the sides with black. Fore wings uniformly dark brown, but not so dark as thorax. The wings are thickly strewn with blackish scales, and have a dark spot at the end of the cell, and an irregular transverse line beyond the end of the cell. The hind wings are white, faintly tinged with pink, and marked with yellowish on costa and outer margins, and further ornamented with a large black spot at the end of the cell. Upon the under side the anterior wings are paler than upon the upper side. They are suffused with dark brown at the apex, and broadly washed with pink upon the costa. None of the markings of the upper surface reappear, except the spot at the end of the cell, which is very distinct. The posterior wings are below as upon the upper side. Expanse of wings, 36 mm.

Hab. Kilimanjaro.

Genus METARCTIA, *Walk.*

M. INCONSPICUA, sp. nov.

♂. Antennæ, head, collar, and abdomen, light reddish brown, brightest upon collar. The tegulæ and the upper surface of the thorax are darker brown, without the reddish cast. The upper surface of the anterior wings is of the same colour as the upper side of the thorax. The posterior wings are pale creamy grey, shading on the inner margin into luteous. The under side of both wings is pale ashen grey, tinged with luteous upon the costæ. Expanse of wings, 30 mm.

Described from one specimen in the collection. This insect is represented in the collection of Mr. Herbert Druce by a male and female specimen from the Congo.

Family LIPARIDÆ, *Boisd.*

Genus LEUCOMA, *Steph.*

L. TAVETENSIS, sp. nov.

♂. Head pale luteous. Antennæ, legs, and body, pale grey. The wings on both surfaces are white, shading into pale grey on the costa upon the upper surface of the primaries. The edges of the costa and the fringes of the wings upon the under side are very narrowly pure white. The wings are immaculate, save that at the end of the cell in the primaries there are two minute black spots, visible only upon the upper surface. Expanse of wings, 40 mm.

Hab. Taveta.

Family LASIOCAMPIDÆ, *Harris.*

Genus STIBOLEPIS, *Butl.*

S. ATOMARIA, sp. nov.

♂. Front reddish. Collar, patagiæ, and upper side of thorax, grey. Legs and under side of thorax, and upper and under side of abdomen, ochreous. The wings are uniformly light grey upon the upper side, and are thickly sown with dark scales, producing a "salt and pepper" effect. There are faint bands upon the costa of the primaries near the base, and upon the limbal area, produced by the massing of the dark scales in lines. The margin is very narrowly dark grey, fringes uniformly pale ashen. The under side of the wings is uniformly pale grey, shading into pale ochreous near the base. The wings are thickly dusted over with dark scales upon the outer half and on the costa. These scales are so arranged just beyond the cell as to present the appearance of four or five faint and narrow bands. The anterior wing near the base and below the cell has very few markings. Expanse of wings, 55 mm.

Hab. Taveta.

Family LIMACODIDÆ, *Boisd.*

Genus COSUMA, *Walk.*

C. MARGINATA, sp. nov.

♂. Antennæ, head, and body, dark olivaceous. *Upper side.*—Anterior wings pale olivaceous, and the posterior wings still paler. Both wings have a silky lustre. There is a well defined, round, cream-coloured mark at the end of the cell of the primaries. The margins are very narrowly stramineous, the border being interrupted by the darker nervules. The fringes are of the

same colour as the body of the wings. *Under side.*—Both wings are marked as upon the upper surface, but are paler, and the marginal maculations are larger and more distinct. Expanse of wings, 28 mm.

Family COSSIDÆ.

Genus DUOMITUS, *Butl.*

D. KILIMANJARENSIS, sp. nov.

♂. Antennæ, head, thorax, and abdomen, dark cinereous. *Upper side.*—Anterior wing wood-brown, darkest on the costa near the base. The wing is profusely mottled with small brown spots, and is crossed beyond the cell by a broad band of very dark brown, which does not touch the costa, nor quite reach the inner edge. This band is split by a wedge of very pale brown at the end nearest the inner margin. The wing is further ornamented by an interrupted irregular submarginal band of brown. The posterior wing is paler in colour than the anterior. The limbal area of this wing is ornamented by spots growing darker and heavier towards the outer margin. Near the outer angle these spots are fused, so as to form a v-shaped mark. *Under side.*—Upon the under side the wings are darker than upon the upper side, and the same markings reappear, but heavier and more sharply defined. Expanse of wings, 58 mm.

The type is unique.

Family HEPIALIDÆ, *H.-S.*

Genus HEPIALUS, *Fabr.*

H. KENIÆ, sp. nov.

♀. Antennæ, head, thorax, and body, with legs, brown. The region of the metathorax is heavily clothed with pale cinereous hairs. *Upper side.*—Anterior wings wood-brown. About the middle of the costa there are three dark brown spots. Above the cell, about one-third of the way from the base, is a large pale spot, slightly clouded with brownish in the centre. A smaller oval spot of like colour appears in the cell near its end. Above the end of the cell there are two small silvery sagittate marks, with their points directed in opposite directions, and partly overlapping each other. The larger arrow, which has its broad end toward the outer border of the wing, is immediately followed by a short curved band of brown spots, bordered inwardly and outwardly by pale cinerous. This short band is followed by a larger submarginal band of similar spots, extending from near the apex to before the outer angle. There are also two comma-shaped streaks below the cell on the inner margin, enclosing between them a dark circular spot, bordered by lighter cinereous. The posterior wings are uniformly fuliginous grey, and so also is the entire under surface of both wings. Expanse of wings, 50 mm.

Genus GORGOPIS, *Hübn.*

G. ABBOTTII, sp. nov.

♀. The body and the wings upon both the upper and under surfaces are very pale fawn, shading at the commissures of the wings and the costæ into pale luteous. The vestiture of the body and wings is lustrous and silky. Expanse of wings, 45 mm.

Family HYPOPYRIDÆ, *Guen.*

Genus CALLIODES, *Guen.*

C. PRETIOSISSIMA, sp. nov.

♂. Very near *Pyrula*, Hopff., but differing in darker colour of upper surface, and in having upon the under side of the secondaries two submarginal

lines of small black spots, the innermost of which lines is angulated before the end of the cell. Expanse of wings, 40 mm.

Type unique.

Ogovia, gen. nov.

O. tavetensis, sp. nov.

♂. The basal joint of the palpi dark brown, and also front of corselet, the hairs of which are erect, and present the appearance of two small fan-shaped masses. The rest of the body is light fawn, except that there are two dusky stripes on abdomen, one on either side of top. Fore wings same colour as thorax, with cloudings near apex and outer margin, and a narrow yellow line sharply angulated before the apex, running from beyond cell parallel to costa, and returning before apex to inner margin. Hind wings dark brown, streaked near anal angle with yellowish. Under side lighter than upper, and hoary on inner margin of secondaries. Expanse of wings, 52 mm.

GEOMETRÆ.

Genus Gonodela, *Boisd.*

G. kilimanjarensis, sp. nov.

Prevalent colour light lilacine grey; outer borders of both wings above broadly purplish grey. Anterior wings with basal, median, and external transverse lines, parallel and angulated below costa. Basal line wanting in secondaries, and the external line of primaries extended upon secondaries on the median line, and replaced by a second external line, which bounds inwardly the broad purplish grey outer shade. The markings of the upper side are produced more sharply on the under side, but are ferruginous, and the ground colour is chalky. Expanse of wings, 35 mm.

G. rhabdophora, sp. nov.

Ground colour whitish, with minute maculations. Dark basal line on primaries, followed by a median line hooked below costa, and suggesting the outline of a crozier. On costa before apex there is a subtriangular dark spot, and the outer third of the wing from below the apex to middle of interior margin is heavily clouded with a dark brown shade, traversed by a black line parallel to external margin. The posterior wing is marked by a broad median band, and a broad submarginal band straight internally and dentate externally. Below, the ground colour of the wings is lighter than above, and the markings are ferruginous and more distinctly defined. Expanse of wings, 32 mm.

Hotel Victoria, London, August 8, 1892.

DESCRIPTIONS of FOUR NEW SPECIES of SCUTELLERINÆ.

By W. L. Distant, F.E.S.

In recently rearranging this portion of my collection of the Heteropterous Rhynchota, by the incorporation of specimens which had accumulated during the last few years, I found it necessary to describe the following species :—

Pœcilochroma balteata, n. sp.

Body above dark purplish black. Pronotum with a broad anterior ochraceous fascia, extending from the anterior margin to between the lateral angles, much sinuated posteriorly, and containing two large purplish black spots behind the eyes. Scutellum with a central transverse ochraceous fascia, its margins much sinuated and angulated. Body beneath and legs dark purplish; lateral and posterior margins, and the outer half of prosternum, dark orange-yellow; abdomen with a large central subquadrate dark orange-yellow spot, its outer and segmental margins violaceous. The eyes are luteous, with their bases purplish. Antennæ dark purplish, basal joint a little paler in hue; fourth and fifth joints mutilated. Ventral furrow broad, extending to the base of the apical segment. Rostrum purplish black, and reaching the third abdominal segment. Long. 22 millim. Exp. pronot. angl. 14 millim.

Hab. Continental India: "Harmatti, B. of D. Hills."*

The peculiar markings of *P. balteata* render it very distinct from the other species of the genus.

Philia ærea, n. sp.

Body above shining golden bronze, the head and lateral margins of pronotum and scutellum with greenish reflections. Body beneath black or very dark olivaceous; lateral margins of the abdomen, femora, trochanters, and bases of the tibiæ coral-red; tibiæ and tarsi dark olivaceous. Antennæ blackish, first and second joints subequal in length, third shorter than fourth, fourth and fifth subequal in length. The red margin to the abdomen beneath is entire or very slightly sinuate inwardly. The body above and beneath is thickly and somewhat coarsely punctate. The rostrum reaches the base of the second abdominal segment. Long. 12 millim.

Hab. Australia: Sydney.

This species is allied to *P. fulgurans*, Stål, but is at once separated by the different colour of the abdomen beneath.

Chrysocoris nicobarensis, n. sp.

Body above shining golden green; the head, anterior and lateral margins of pronotum bluish, the discal and apical area of scutellum bronzy. Pronotum with a longitudinal series of three black spots on each lateral area, and a central lanceolate black spot at base. Scutellum with six black spots, three on each side, the last pair being somewhat close together a little before apex. Body beneath shining bluish green, the abdomen a little paler in hue. Legs dark bluish, tarsi almost black. Coxæ and a spot at base of head luteous; stigmata black. Eyes brownish; antennæ with the first and second joints bluish, the third black; remaining joints mutilated. The body is very gibbous, with a deep excavation between the pronotum and scutellum, and with the base of the scutellum also gibbous. Long. 17 millim.

Hab. Nicobar Islands.

The structure of this species allies it to *C. excavatus*, Guer., but it is much broader than that species.

* My specimen is thus localised, and I am unable to fix the habitat with greater precision.

Chrysocoris dissimilis, n. sp.

Body above ochraceous, thickly and more darkly punctate. Head with the eyes, basal margin, central lobe, and antennæ, black; a spot at base of central lobe and basal joint of antennæ (excluding apex) ochraceous. Pronotum with a broad central transverse fascia on anterior area, and a transverse series of six spots on posterior area, black. Scutellum with the basal margin, two transverse spots near base, and four rounded spots on disk, black. Margins of corium black. Body beneath and legs ochraceous; femoral streaks, tibiæ, tarsi, abdominal and sternal incisures, rostrum excluding base, a spot on each side of head near insertion of antennæ, sternal spots and abdominal stigmatal spots, black. Long. 10 millim.

Hab. Malayan Archipelago: Sumba (*Doherty*).

A small species unlike any other of the genus.

SYNONYMICAL NOTES.

Tetrarthria lineata, Walk., Cat. Heteropt. i. p. 18, n. 2, 1867 = var. *Tetrarthria variegata*, Dall., List. Hem. i. p. 20, n. 1, t. 1, f. 1 (1851).

I have received this form of the species from Perak, in the Malay Peninsula.

Tetrarthria lateralis, Walk., Cat. Heteropt. i. p. 21, n. 11, 1867 = var. *Tetrarthria variegata*, Dall., ibid.

This form of the species is also found in Assam.

Callidea aureocincta, Walk., Cat. Het. i. p. 41 (1867), *Callidea subapicalis*, Walk., ibid. p. 36, and *Callidea curtula*, Walk., ibid. p. 39, are three varietal forms of *Philia senator*, Fabr., Syst. Rhyng. p. 131, n. 14 (1803).

The above probably do not exhaust the varieties of *T. variegata* and *P. senator*, described by Walker, but only refer to specimens thus identified in my own collection.

DESCRIPTIONS OF SOME NEW SPECIES OF EUMOLPIDÆ AND HALTICIDÆ FROM AFRICA (GABOON).

By Martin Jacoby, F.E.S.

Menius subcostatus, n. sp.

Broad and robust, metallic green; antennæ black; head rather closely punctured; thorax more strongly but subremotely punctured; elytra rather strongly but not very regularly punctate-striate; the sides with a short costa near the apex; femora with a strong tooth. Length, 4 lines.

Head finely punctured, the punctures somewhat elongate, the eyes

surrounded by a deep sulcus; the clypeus separated from the face by a deep transverse groove, very finely punctured; antennæ bluish black, only extending to the base of the elytra, the terminal five joints slightly thickened and pubescent; thorax transverse, strongly widened at the middle, the sides straight, narrowed in front, the anterior angles acutely pointed, the surface transversely convex, rather remotely and distinctly punctured, the punctures a little finer at the sides than at the disc; elytra convex, the shoulders prominent, the punctures arranged in rather irregular rows, more closely placed at the sides and larger than near the suture, the interstices also very finely punctured; a short longitudinal costa is placed at the sides below the middle; abdomen bluish, stained with fulvous; the four posterior tibiæ emarginate at the apex, all the femora armed with a stout tooth, claws bifid; prosternum broad, rugosely punctured.

This is a large-sized species, of which I possess a single apparently female specimen; it is possible that the male is devoid of the elytral costa.

Menius (?) splendidus, n. sp.

Elongate, black; antennæ (the last joint excepted) and legs fulvous; head and thorax metallic greenish-cupreous, the latter remotely punctured; elytra metallic aureo-cupreous, regularly punctate-striate; femora unarmed. Length, 3½ lines.

Of elongate and rather subcylindrical shape; the head very finely punctured, with a deep longitudinal central groove; the clypeus separated from the face by an equally deep transverse groove, finely punctured; labrum piceous; antennæ extending to about half the length of the elytra, fulvous, the terminal joint black; eyes surrounded by a deep, posteriorly widened sulcus; thorax twice as broad as long, the sides straight, not narrowed in front, the anterior angles acutely produced, the anterior margins sinuate at the middle, the surface distinctly but not closely punctured, metallic greenish-cupreous; elytra bright metallic reddish-cupreous, without basal depression, strongly punctate-striate, the interstices very minutely punctured; under side black, the sides of the breast metallic greenish; legs fulvous, the four posterior tibiæ emarginate near the apex, claws bifid; prosternum subquadrate, its base slightly concave, the posterior angles pointed.

Of more elongate and cylindrical shape than most of its allies, and without femoral teeth, but possessing all other structural characters of the genus. A single specimen is contained in my collection.

Menius flavitarsus, n. sp.

Metallic greenish or bluish, above metallic green or obscure æneous: antennæ, the tibiæ more or less, and the tarsi, flavous; thorax subremotely punctured; elytra strongly punctate-striate, the interstices slightly convex, impunctate. Length 2½ lines.

Head finely and not very closely punctured; flat supra-orbital grooves narrow but distinct; labrum fulvous; palpi flavous; antennæ extending to about two-thirds the length of the elytra, entirely flavous, the third and fourth joints equal; thorax twice as broad as long, the sides slightly rounded, the surface finely, rather irregularly and not very closely punctured; elytra convex, deeply punctate-striate; the four posterior femora with a distinct tooth; the base of the tibiæ metallic green like the rest of the under side, their lower portion and the tarsi flavous; claws bifid.

The bright flavous colour of the greater part of the tibiæ and the tarsi will separate this species from any of its allies.

PSEUDOCOLASPIS TUBERCULICOLLIS, n. sp.

Black, sparingly pubescent; basal joints of the antennæ fulvous; thorax remotely punctured, bituberculate; elytra strongly punctate-striate anteriorly, with some white stiff hairs; femora with a long curved spine. Length, $1\frac{3}{4}$ line.

Entirely black, shining, the head longitudinally strigose; antennæ short, the last six joints strongly thickened and transverse, black, pubescent, the basal five joints fulvous; thorax long, the sides without margins, the disc with two elongate ridge-like tubercles at the sides, remotely but distinctly punctured, furnished with some white bristle-like hairs; scutellum subpentagonal, the base with some punctures; elytra with a transverse basal depression, the shoulders produced into an acute ridge, the surface strongly punctate-striate within the depression, more finely so posteriorly, the interstices provided with white stiff erect hairs; under side strongly punctured, more closely pubescent, the femora with a long curved tooth, the tibiæ also with a fine tooth near the apex.

(Coll. Jacoby.)

NERISSUS GABONENSIS, n. sp.

Metallic greenish-black below, sparingly pubescent; the antennæ, tibiæ and tarsi black, above metallic green; the thorax closely and strongly punctured, pubescent; elytra punctured like the thorax, the interstices transversely rugose, clothed with whitish pubescence. Length, $2\frac{1}{2}$—3 lines.

Head rather finely and not very closely punctured, sparingly pubescent, the lateral margins of the clypeus raised; palpi with pale basal joints; antennæ nearly as long as the body in the male, slender, filiform, black; thorax transverse, one-half broader than long, the sides rounded and serrate, the surface deeply and closely punctured, sparingly clothed with whitish hairs; elytra sculptured like the thorax, but the interstices near the base transversely wrinkled; underside more obscure metallic green; the flanks of the thorax very strongly, the breast more finely, punctured.

(Coll. Jacoby.)

N. gabonensis seems allied to *N. hispidulus*, Lefèv., but that species is described as bluish or cupreous, of having a mixed white and fulvous pubescence, the latter being also dense. *N. strigosus*, Chap., is a much larger species, and has the pubescence of the elytra arranged in rows; the female of *N. gabonensis* has shorter antennæ, and is of a more broad and shorter general shape.

HALTICIDÆ.

LACTICA MARGINICOLLIS, n. sp.

Flavous below, reddish-fulvous above; thorax impunctate, parallel, the sides narrowly margined; elytra finely and closely punctured. Length, $2\frac{1}{3}$ lines.

Head impunctate, reddish-fulvous, the frontal elevations oblique; the carina distinct, thickened; eyes moderately large, rather distant; palpi robust; antennæ scarcely extending to half the length of the elytra, fulvous, the third joint slightly larger and more elongate than the following joints,

much larger than the second; thorax with the anterior and posterior margins parallel; the sides rounded below the middle, with a narrow but distinct margin, the anterior margins oblique, the surface impunctate; elytra wider at the base than the thorax, of the same colour, not depressed below the base, very closely and finely punctured.

This *Lactica* resembles many of its South American congeners in colour, and may be known by the parallel and impunctate thorax in connection with the dark reddish colour.

Lactica gabonensis, n. sp.

Large, robust, entirely pale fulvous; thorax with strongly rounded sides, finely and closely punctured; elytra scarcely more distinctly punctured. Length, 4 lines.

Of broad, elongate, and parallel shape, pale fulvous; the head impunctate, the elevations indistinct; the carina broad; labrum darker fulvous; the antennæ scarcely extending beyond the base of the elytra, the second joint short, the third and fourth equal; thorax twice as broad as long, the sides strongly rounded at the middle, the anterior angles blunt and broadly oblique, the base with a perpendicular groove at each side, the intervening space rather depressed, the surface very minutely and closely punctured; elytra much wider at the base than the thorax, rather convex, as closely and scarcely more distinctly punctured than the thorax; under side and legs coloured as the upper side; posterior tibiæ mucronate.

One of the largest size species of *Lactica* known to me, and differing from most of its allies in the absence of a thoracic transverse groove, but in other respects typical.

Œdionychis impressicollis, n. sp.

Obscure testaceous: antennæ (the apical two joints excepted) nearly black; thorax impunctate, transversely sulcate at the base; elytra strongly and rather closely punctured. Length, 2½ lines.

Of posteriorly slightly widened shape; the head impunctate, the frontal tubercles strongly developed, the carina strongly raised; labrum piceous; antennæ short, not extending to half the length of the elytra, the three basal and the two apical joints obscure testaceous, shining, the others black and pubescent; thorax twice as broad as long, the sides rather strongly rounded with a broad margin, the base with a deep sinuate transverse groove, the rest of the surface entirely impunctate; elytra with a short depression below the base, strongly punctured; the first joint of the posterior tarsi short, the claw-joint strongly swollen.

Principally distinguished by the deep thoracic transverse groove.

Physoma Haroldi, n. sp.

Fulvous: antennæ dark fuscous; head sparingly punctured; thorax smooth, shining, finely and sparingly punctured; elytra more closely and distinctly punctured, the anterior half metallic blue, the posterior one pale fulvous. Length, 4 lines.

Head strongly punctured at the base and round the eyes; clypeus in shape of a transverse ridge, the anterior portion strongly truncate and deflexed; mandibles black; palpi strongly incrassate; antennæ not extending to half the length of the elytra, nearly black, the basal joint dilated, the third and following joints of equal length; thorax more than twice as broad as long, the sides rather broadly flattened, the lateral margins nearly straight,

the disc rather convex, smooth, with a few fine punctures, the anterior angles very slightly produced; scutellum flavous, impunctate; elytra closely and distinctly but not very strongly punctured, the anterior portion as far as the middle metallic blue, the rest fulvous or obscure flavous, their epipleuræ metallic dark blue; tibiæ entire, claw-joint strongly inflated.

At first sight this species seems almost identical with the only other known one from Old Calabar, *P. Dohrni*, Har., but the constant differences shown in the four specimens before me seem to prove them to represent another species; these differences are the following: the thorax, instead of being of uneven surface and rugosely punctate, is smooth and nearly impunctate in *P. Haroldi*; and instead of the fulvous apex of the elytra, as in the last-named species, this colour occupies the entire posterior half. I possess both sexes; in one of the specimens, however, the antennæ are entirely fulvous, and the similarly-coloured apex of the elytra extends only to a third upwards, and its upper edge being obliquely concave, not straight as in the other specimens; in the absence of other differences, I must look upon this specimen as a variety.

GABONIA, n. gen.

Oblong-ovate; eyes large; antennæ with subtriangular joints, the second and third short; thorax transverse, the posterior margin rounded; elytra irregularly punctured, their epipleuræ very broad; tibiæ sulcate, the anterior ones unarmed, the posterior ones with a long spine; metatarsus of the posterior legs as long as the following two joints together; claws appendiculate; prosternum very narrow, the anterior coxal cavities closed.

This genus, which will enter the group of *Arsipodinæ* of Chapuis' arrangement, resembles, in general shape and appearance, the South American genus *Oxygona*, but the thorax in the latter is still much more transverse, and the antennæ are of different construction; the long and slender spine at the posterior tibiæ in the present insect is another characteristic of the genus.

GABONIA UNICOSTATA, n. sp.

Fulvous; the base of the head black; the antennæ, thorax, and legs flavous; thorax impunctate; elytra very minutely punctured, fulvous, with a strongly raised transverse ridge near the apex. Length, $2\frac{1}{2}$ lines.

Head with a few very fine punctures at the vertex, the latter black, the lower portion flavous, frontal tubercles transversely subquadrate, carina acute; labrum piceous; eyes very large; antennæ extending to about half the length of the elytra, fulvous, the second and third joints short, equal, the intermediate joints slightly triangularly widened; thorax twice as broad as long, the sides slightly rounded, the anterior angles somewhat broadly produced, the posterior margin rounded, the surface with a few very minute punctures, flavous; scutellum fulvous; elytra rather convex, extremely closely and finely punctured, fulvous; a highly-raised transverse ridge is placed at a little distance from the apex, but does not extend to the sides, the apical portion behind the ridge is strongly deflexed; elytral epipleuræ very broad, concave, extending to the apex; posterior femora strongly incrassate, their tibiæ longitudinally sulcate, with a long apical spine.

The elytral subapical ridge in this species is the only instance known to me of such a structure amongst the *Halticidæ*. Two specimens, apparently of both sexes, are contained in my collection.

NOTES ON SOME SPECIES OF GALERUCIDÆ.

By Martin Jacoby, F.E.S.

Stenoplatys (Cœligethes) robustus, *Allard.*

This species, described by M. Allard in the Comptes-rendus of the Belgian Entom. Soc. for 1889, is, as I have already remarked, wrongly placed in *Stenoplatys*. The latter genus was founded by Baly on an African species, and is identical with *Galeruca picea*, Fabr., placed in Genninnger's Catalogue in *Diacantha*. In *Stenoplatys* the thorax has two deep foveæ at the middle of the disc; the elytral epipleuræ are broad, and continued and gradually narrowed posteriorly. Chapuis, in his diagnosis of *Stenoplatys*, under his group of *Platyxanthinæ*, gives the shape of the thorax as one-half broader than long; but in his detailed description of the genus he speaks of it as being twice as broad as long (the latter is in reality the case). *Stenoplatys robustus*, All., inhabits the Philippine Islands, and belongs to my genus *Cœligethes* (Notes, Leyden Mus., 1884). The thorax in this genus is short, transverse, the disc rather convex and without depressions; the elytra are convex, without basal depressions, and their epipleuræ are narrow and nearly disappear entirely below the middle. I possess another very closely allied species from Java, of more depressed shape and of entirely testaceous colour, which I have lately described as *C. unicolor*. In my diagnosis of *Cœligethes* I have described the metatarsus of the posterior legs as being as long as the following two joints together; it is, however (as rightly given by Allard), of the length of the three following joints.

Cryptocephalus ruficollis, *Fabr.*

The type of this species, described from the Banks' collection, is contained in the British Museum; an examination of the specimen proves it to belong to the *Galerucidæ*, and not to *Cryptocephalus* at all. Olivier has described the species also, referring it rightly (not wrongly, as Suffrian says) to that of Fabricius. The habitat of the insect is given as St. Helena; some time ago I received from the Museum at Cape Town another specimen, and obtained at the latter place, so that it remains somewhat doubtful whether St. Helena is another locality

for the insect: the Cape Town specimen agrees entirely with the type in the Banks' collection, which must find its place in a new genus allied to *Rupilia* and allied genera.

The original specific name of *ruficollis*, altered by von Harold to *erythrodera*, can therefore be restored, although the thorax in the type, and in my specimen, is more flavous than rufous. The following is the diagnosis of the genus, and the description of the species:—

PSEUDORUPILIA, n. gen.

Body ovate, dilated posteriorly; head very broad, not narrowed in front; eyes rather small; palpi slender, the apical two joints elongate; antennæ subfiliform; thorax transverse, the sides rounded, the middle of the anterior and posterior margin constricted; scutellum large; elytra shorter than the body, their epipleuræ very broad anteriorly, entirely disappearing below the middle; legs robust; tibiæ with their outer edge raised in shape of a ridge, unarmed, the first joint of the posterior tarsi as long as the following two joints together; claws appendiculate; prosternum invisible between the coxæ; metasternum short, the anterior coxal cavities open.

This genus bears a great resemblance to the Australian genus *Rupilia*, but is distinguished by the more slender antennæ, the want of the elytral epipleuræ below the middle, which in *Rupilia* extend to the apex, and by the appendiculate claws.

PSEUDORUPILIA RUFICOLLIS, *Fabr.*

Flavous; the head, antennæ, scutellum, the legs, sides of the breast, and the base of the abdominal segments, black; thorax and elytra finely punctured. Length, $2\frac{3}{4}$ lines.

Head broad and robust, black, impunctate, transversely grooved between the eyes, the frontal elevations trigonate, nearly contiguous; clypeus transversely raised; labrum flavous; mandibles robust and elongate; antennæ black, the first joint short and thick, the second very short, the third and fourth joints as long as the first, the following four joints shorter, the rest broken off; thorax twice as broad as long, constricted at the middle, the sides strongly rounded, the anterior angles distinct, the posterior ones obsolete, the surface very minutely punctured, flavous, the middle of the disc stained with fulvous; scutellum broader than long, black; elytra widened posteriorly, their apex broadly rounded, the surface finely punctured and wrinkled; under side flavous; the sides of the breast, the legs, and a transverse band at the base of each abdominal segment, black.

Hab. South Africa, Cape Town (St. Helena ?).

A NEW SPECIES OF *PAPILIO*, AND A NEW FORM OF *PARNASSIUS DELPHIUS*, FROM WESTERN CHINA.

By J. H. Leech, B.A., F.E.S., &c.

Papilio dialis, sp. nov.

Male. Closely resembles *P. bianor*, but there is no patch of silky hairs between the first median nervule and the submedian nervure, and the patches on the veins are composed of shorter hairs. The primaries are black, sprinkled with bronzy-green scales, except on the venation and broad rays between the nervules. Secondaries black, thickly powdered with greenish scales, those on the costal half and on the tails being bluish, and those on other portions of the wing bronzy; there is a broad annular mark at anal angle, a lunule in first median interspace, and another in discoidal interspace —all these marks are red dashed with lilacine on their upper edges. Under surface of primaries pale grey, merging into white on the outer two-thirds of inner marginal area; all the nervules and streaks between them are broadly black, and there are four nerve-like black streaks in the discoidal cell: secondaries velvety-black, sprinkled on the basal and abdominal areas and on the tails with metallic green scales; there is a series of seven red irregular-shaped lunules on the outer margin, the sixth is united with the seventh by a broad projection from the lower edge of the latter, and its upper extremity almost unites with the lower end of the fifth lunule. Expanse, 130 millim.

One example taken at Chia-ting-fu in July.

This species is most readily distinguished from *P. bianor*, *P. maackii*, &c., by the different arrangement of the silky patches on the primaries of the male.

Parnassius delphius var. elwesi, var. nov.

Male. Larger than any of the named forms of *P. delphius*, but in some particulars it resembles var. *transiens*. It differs, however, from that insect, as it also does from any variety of *P. delphius* that I have seen, in having a red spot in the lower portion of the large black bar beyond the discoidal cell of primaries, and a patch of black scales between the usual discoidal spots; there are only the faintest possible traces of a black spot above the inner margin. On the secondaries the black basal area is deeply indented on its outer edge, and the marginal border is of uniform width throughout. Fringe white, chequered on the primaries with black at the ends of the nervules. Under surface glassy, with all the markings of upper surface faintly reproduced. Expanse, 80 millim.

One example from the high plateau to the north of Ta-chien-lu.

Although I have referred this insect to *P. delphius*, I recognise the possibility of its proving to be a distinct species when a larger number of specimens, including the female, are available for examination.

DESCRIPTIONS OF SOME NEW SPECIES OF PHYTOPHAGOUS COLEOPTERA FROM THE EAST.

By Martin Jacoby, F.E.S.

Chrysomela micans, n. sp.

Brownish æneous, very shining, the thorax impunctate at the disc, deeply punctured at the sides, the latter thickened; elytra very convex, with four double rows of very deep punctures, the interstices impunctate. Length, 4 lines.

Of ovate, strongly convex shape, metallic brownish æneous, the head entirely impunctate, with a central short longitudinal groove, antennæ extending slightly beyond the base of the elytra, the terminal joints thickened, the lower seven joints piceous, shining, the others black, opaque; thorax nearly three times broader than long, the sides rather strongly rounded anteriorly, the angles not produced, the disc very shining and impunctate, the sides thickened, with several rows of deep and irregularly-placed punctures; scutellum with a slight depression; elytra very convex at the middle, with four rows of double semifoveolate punctures and a single row near the suture; the breast and abdomen impunctate, coloured like the upper surface; prosternum slightly sulcate.

Hab. China. (My collection.)

C. micans seems allied to *C. foveopunctata*, Fairm., but differs in its general bronze coloration, in having no lateral thoracic deep sulcus, but deep punctures in its place, and in the four very deep rows of elytral punctures.

Chrysomela indica, n. sp.

Apterous, greenish or bluish æneous, the antennæ and tarsi black, thorax longitudinally sulcate at the sides, strongly and remotely punctured; elytra very convex at the middle, reddish fulvous, more or less æneous, very finely punctured, the interstices minutely aciculate.

Var. Elytra reddish fulvous, the suture obscure æneous. Length, 4½—5 lines.

Of medially strongly convex shape, the head finely and sparingly punctured, obscure greenish æneous, opaque; antennæ filiform, nearly extending to a third of the elytra, black, the third joint distinctly longer than the fourth; thorax twice as broad as long, broader in the female, the sides slightly rounded and widened towards the apex, the anterior angles rounded, not produced, the disc irregularly, strongly, but remotely punctured, the sides with a longitudinal sulcation, not strongly marked, but more closely punctured than on the disc; elytra strongly rounded towards the middle and very convex, fulvous or æneous with a slight fulvous tint, scarcely shining, very finely, closely and irregularly punctured, the interstices minutely scratched or aciculate; prosternum strongly longitudinally sulcate.

Southern India. (My collection.)

This species, by its strongly convex and posteriorly pointed shape, resembles *C. templetoni*, Baly, but the elytra are almost entirely without gloss, opaque, and closely and very finely and irregularly punctured; in the obscure æneous specimen the suture alone shows some metallic gloss; in the variety, which

is of smaller size, the elytra are reddish fulvous, but traces of that colour are also visible in the specimen upon which I look as the type.

CHRYSOMELA SEMIFULVA, n. sp.

Metallic dark bluish or slightly purplish, the head and thorax impunctate, the latter longitudinally sulcate at the sides; elytra obscure fulvous with purplish gloss, each with four double rows of irregularly placed deep punctures. Length, 3½ lines.

Head entirely impunctate, greenish, antennæ extending to the base of the elytra, black, the terminal joints gradually thickened; thorax more than twice as broad as long, the lateral margin straight at the base, slightly rounded anteriorly, the disc entirely impunctate, with a central longitudinal groove from the base to the apex, the sides thickened, bounded within by a longitudinal sulcation extending the whole length, metallic greenish, the disc more obscure purplish; elytra dark fulvous with a slight purplish gloss, with four double rows of deep punctures of greenish colour, and a single row placed near the suture; the punctures of this row are very distantly placed from the middle downwards, those of the third double row are entirely irregularly distributed with scarcely an arrangement in pairs, the lateral margin is also accompanied by a row of deep punctures; under side and legs greenish, scarcely punctured, prosternum without longitudinal sulcation.

Hab. India, Utakamand.

Much distinguished by the entirely impunctate head and thorax.

CHRYSOMELA BALYI, n. sp.

Ovate, strongly convex, greenish æneous, the apical joints of the antennæ black; thorax with a few deep punctures, bi-impressed at the sides; elytra reddish fulvous, strongly and rather closely punctured. Length, 5—6 lines.

♀. Larger, elytral interstices convex, variolose.

♂. Of metallic green and slightly brassy colour; the head with a very few fine punctures near the eyes, the labrum and mandibles black, antennæ very short, not extending beyond the base of the thorax, the basal joint metallic green, the apical five joints strongly dilated, broader than long, black; thorax more than twice as broad as long, the sides and the interior margin at the middle straight, the anterior angles rounded, and but slightly produced, the surface brilliant metallic greenish, with a few deep punctures and a short transverse fovea at each side, the latter without any longitudinal depression; scutellum metallic green; elytra reddish brown, gradually raised towards the middle, from there to the apex rather strongly deflexed, with a short transverse depression below the shoulders, strongly punctured, the punctures arranged in irregular rows near the suture and at the sides, more irregularly on the disc, and more finely so at the apex than anteriorly, the interstices smooth; under side and legs metallic green; prosternum longitudinally convex, metasternum very slightly tuberculate in front, abdominal segments finely punctured.

South India, Madras. (My collection.)

I do not think to err in considering specimens of larger size, and with strongly rugose or variolose elytra, as representing the female sex of the same species; there is absolutely no other difference to be found than the sculpture of the elytra, which are much more deeply punctured, and have the interstices throughout strongly convex and rugose, with traces also of longitudinal costæ.

GALERUCIDÆ.

XENODA BASALIS, n. sp.

Fulvous, finely pubescent above, head impunctate, antennæ black, the apical joints yellowish white; thorax short, impunctate; elytra transversely rugose and punctured, finely pubescent, black, the base fulvous; abdomen blackish.

♂. Antennæ with the third to the tenth joint greatly swollen and widened, the apical joint whitish, thin; elytra entirely black.

♀. Antennæ filiform, the intermediate joints very slightly dilated, the last two joints whitish.

Length, 1½ line.

Head broad, the vertex convex, impunctate, fulvous, the frontal elevations strongly raised, trigonate; palpi robust, the penultimate joint incrassate; antennæ extending to about the middle of the elytra, clothed with longish hairs, black, the second joint very short, the third and following joints strongly widened; thorax more than twice as broad as long, the sides nearly straight, the angles obtuse, the disc transversely and broadly sulcate, impunctate; scutellum fulvous; elytra broader at the base than the thorax, slightly widened posteriorly, the surface uneven and rugose, the interstices finely punctured and clothed with long greyish hairs, black, with a slight violaceous gloss, the base narrowly fulvous, the sides perpendicularly deflexed, forming a distinct edge or costa from the shoulder to the apex; under side and legs fulvous, the latter slender, clothed with yellowish hairs.

Hab. Sumatra. (My collection.)

The pubescence of the elytra, although long, is thin, and does not obscure the gloss; the fulvous portion does not occupy one-third of their length. I refer to this species (which is only half the size of the two others known) a single male specimen, contained in my collection, which has the antennæ structured as given above, but has entirely black elytra. All the other specimens are females, in which the base of the elytra is fulvous. *X. hirtipennis*, Jac., is much larger and is of different coloration, and possesses antennæ of different construction.

PSEUDOCOPHORA INORNATA, n. sp.

Pale fulvous, the four posterior legs and the breast and abdomen black; antennæ pale flavous; thorax impunctate; elytra closely and finely punctured.

♂. Elytra with a conical tubercle at the base, bounded by a dark coloured fovea; the last abdominal segment trilobate, the medial lobe plane.

♀. Elytra without tubercles or fovea, the last abdominal segment simple.

Length, 2½ lines.

Hab. Perak. (My collection.)

Closely allied to *P. uniplagiata*, Jac., *ambusta*, Erichs., and *brunnea*, Baly, but differing in the colour of the elytra, which are of uniform pale fulvous, with the exception of the interior of the fovea, which is black. From *P. ambusta*, the plane—not concave—last abdominal segment, and the conical elytral tubercles, distinguish the present insect; the entirely fulvous elytra, smaller size, and the different anal segment in the female, separate it from *P. brunnea;* the sutural margin below the fovea of the

elytra is also slightly raised in *P. inornata*, without, however, assuming the shape of teeth. Baly, in his tabular arrangements of the species of *Pseudocophora*, gives the median lobe of the last abdominal segment in *P. uniplagiata* as plane, and in *P. brunnea* as being concave. This it an error, and should be reversed; the segment in question is plane in *P. brunnea*, and concave in *P. uniplagiata*.

Momœa rugipennis, n. sp.

Testaceous, the antennæ (the apical three joints excepted), and the tibiæ, and tarsi black; thorax with three depressions, and marked with black; elytra strongly rugose, blue or green, the lateral margins flavous, preceded by a purplish band. Length, 3½ lines.

Head with some fine punctures, testaceous, the vertex blackish, frontal tubercles transverse, labrum black; antennæ extending nearly to the end of the elytra, black, the apical three joints yellowish white, third joint extremely long and the longest; thorax twice as broad as long, the sides straight at the base, slightly angulate before the middle, the surface with a deep transverse sulcus at the middle, and a short longitudinal groove at the base, somewhat rugosely punctured, the interior of the sulcus black; scutellum black, its apex truncate; elytra narrowly elongate, parallel, strongly rugose and punctured, with traces of longitudinal costæ, blue or green, the sides with a broad purplish longitudinal band, the lateral margins flavous; under side and femora testaceous, tibiæ and tarsi piceous or black; claws bifid; anterior coxal cavities open.

Hab. Celebes. (My collection.)

This species may easily be mistaken for *Calaïna mirabilis*, Schauf., which inhabits likewise Celebes; both insects are almost identical in coloration, and nearly in structure, except that in *Momœa* the elytral epipleuræ are narrow and continued to the apex, which is not the case in *Calaïna*; the present insect is also of narrower shape, and wants the discoidal purplish band of *C. mirabilis*.

Yulenia flavofasciata, n. sp.

Elongate, parallel, flavous; antennæ (the basal joints excepted) fuscous; head and thorax impunctate; elytra closely punctured, metallic blue, with a broad flavous transverse band at the middle. Length, 2¾ lines.

Head deeply transversely grooved between the eyes, fulvous, the vertex piceous, the frontal tubercles strongly raised, transverse; clypeus triangular, penultimate joint of the palpi thickened; antennæ extending to the end of the elytra, fuscous, the basal three joints fulvous, the first joint elongate, strongly widened at the apex, the second short, the third slightly longer than the fourth joint, the last two joints obscure, fulvous, slender; thorax transverse, twice as broad as long, parallel, the sides narrowed at the base, subangulate before the middle, the surface impunctate, flavous; scutellum black; elytra finely and closely punctured, the basal and apical portion metallic blue or purplish, this colour interrupted by a transverse broad fulvous band, the anterior margin of which is straight, the posterior one widened towards the suture; claws bifid.

Hab. Batchian. (My collection.)

This is the second species of the genus described by me in the 'Genoa Annals' of 1886; it agrees in all structural characters with the type.

SPHENORAIA QUADRIPUNCTATA, n. sp.

Fulvous; the antennæ (the basal three joints excepted), the sides of the abdomen, the apex of the tibiæ, and the tarsi, black; thorax with a deep transverse sulcus, elytra with four double rows of punctures, the interstices finely punctured, each elytron with a small black spot below the base and another near the apex. *Var.*—Elytra without spots.

Hab. Timor. (My collection.)

It is not without some doubt that I describe this species as new, since it almost entirely agrees, except in colour, with *Haplosonyx javana*, Wied., and also with *S. sexplagiatus*, Baly. There are, however, eight specimens before me, which all differ in the same way from the species named, and principally in the sculpture of the thorax, which has a deep and sinuate sulcus extending across the middle, but not to the sides; in *H. javana* and *sexplagiatus* the thorax has a deep transverse lateral depression only, which does aot extend across the middle. In all these species the second and third joints of the antennæ are very short, equal in the male, subequal in the female. *S. sexplagiatus*, Baly, is further distinguished by having convex or costate elytral interstices at the sides, but agrees almost entirely in coloration with *H. javana*, Wied. (4-*plagiatus*, Baly). The latter species inhabits Java; while *sexplagiatus* is described from Flores. It is, however, quite possible that all these forms represent but local varieties of one species.

DORYDEA JAVANENSE, n. sp.

Fulvous; the head, antennæ, thorax, and the legs flavous; thorax bifoveolate; elytra fulvous, finely punctured in indistinct rows, deeply depressed below the base.

♂. The seventh and eighth joints of the antennæ much thickened.

Head impunctate, flavous; antennæ extending nearly to the end of the elytra, flavous, robust, the seventh and eighth joints much thickened, the latter joint shorter and thicker than the preceding one, the terminal joints very elongate and slender, with a short twelfth appendage; thorax broader than long, the sides slightly rounded at the middle, the surface impunctate, flavous, with two foveæ; elytra with a deep depression below the base, reddish fulvous, very finely and closely punctured in irregular rows, the punctures slightly stronger within the depression, the interstices very obsoletely longitudinally costate; the legs flavous, the abdomen fulvous.

Hab. Java.

At first sight the present species resembles entirely the type *D. insignis*, Baly, but an examination of the antennæ proves it to be quite distinct; in *D. insignis* the eighth joint of the antennæ is very short and transverse, while the following two joints are enormously swollen; in *D. javanense* it is the seventh and the eighth joints which are thickened (although to a less extent than in the allied species), and the three terminal joints are long and slender; the punctuation of the elytra is finer and less regularly arranged than in *D. insignis*, but there is

no doubt whatever that both species belong to the same genus. Baly did not know the female sex of his genus, and this difference in the structure of the antennæ in the male proves how little importance should be attached to sexual characters only when genera are concerned. I see, for instance, no reason why *Dorydea* should be separated from *Platyxantha*, and the same may be said of my genus *Metellus* (*Nacræa*, Baly). Both of us created this genus on the structural character of the male, while the female cannot be separated from *Platyxantha;* and these remarks apply to a great number of genera of which the males only are known. Like the male of *D. insignis*, the present species has a short prolongation at the apex of the posterior tibiæ, and the last segment of the abdomen is incised at each side; the female has probably simple antennæ in both species, and does not differ in structural characters from *Platyxantha*.

PLATYXANTHA WALLACEI, n. sp.

Black; the head, thorax, and the femora fulvous; antennæ flavous; thorax transversely bisulcate, impunctate; elytra black, minutely punctured; posterior tibiæ dilated; last abdominal segment flavous. Length, 3½ lines.

Head impunctate, fulvous; frontal tubercles transverse; clypeus and labrum flavous, the former strongly deflexed; palpi rather slender and long; antennæ flavous, slender, the third joint shorter than the fourth, but elongate, more than twice as long as the second joint; thorax about one-half broader than long, the sides straight and narrowed at the base, rounded before the middle, the anterior angles not prominent, the surface transversely sulcate at each side, fulvous, impunctate, shining; scutellum piceous; elytra with a shallow depression below the base, extremely minutely punctured, black, shining; below black, the last abdominal segment and the femora flavous; posterior tibiæ dilated and flattened at the middle; last abdominal segment trilobate, the middle lobe elongate.

Hab. Sumatra. Collected by Mr. Wallace.

The single specimen before me is apparently a male, and may be known from *P. nigripennis*, Jac., by the dilated posterior tibiæ. The last three joints of the antennæ are broken off.

PLATYXANTHA ROBUSTA, n. sp.

Broadly oblong-ovate, fulvous; the last joint of the antennæ black; thorax subquadrate, convex, impunctate, without depressions; elytra broader than the thorax, very minutely punctured in indistinct rows. Length, 3½—4 lines.

Of broad and robust shape, entirely fulvous; the head impunctate, the frontal elevations and the clypeus very strongly raised; palpi strongly incrassate; mandibles robust; antennæ extending to the middle of the elytra, fulvous, the terminal joint black, the third joint twice as long as the second, but shorter than the fourth joint, two or three basal joints shining, the others pubescent and opaque; thorax one-half broader than long, the sides strongly rounded at the middle, much narrowed at the base, the anterior margin concave at the middle, the surface convex, shining, impunctate; scutellum fulvous; elytra much broader at the base than the thorax, very convex; the punctures very fine, rather indistinct, and widely placed in irregular rows; the lateral margin slightly thickened and impunctate; tibiæ unarmed; the

first joint of the posterior tarsi as long as the following two joints together; anterior coxal cavities closed.

Hab. New Guinea.

This species is of much more robust and broad shape than is the case with most of its allies, but agrees in all structural characters.

PLATYXANTHA BALYI, n. sp.

Elongate, metallic dark blue; the antennæ (the apical four joints excepted) and the legs black; thorax impunctate, transversely sulcate; elytra closely punctured and finely rugose. Length, $3\frac{1}{2}$—4 lines.

Head impunctate; the vertex (in one specimen fulvous), frontal elevations, and the carina distinct; palpi moderately incrassate; eyes large; antennæ long and slender, black, the apical four joints fulvous, third and fourth joints elongate, equal; thorax one-half broader than long, the sides nearly straight, slightly narrowed at the base, the angles not prominent, the surface with a more or less deep sulcation not extending to the sides, impunctate, dark blue; scutellum black; elytra broader at the base than the thorax, very closely and rather strongly punctured; the interstices finely rugose, dark metallic blue or violaceous; under side black, sparingly pubescent; the metatarsus of the posterior legs longer than the following joints together; tibiæ unarmed; anterior coxal cavities closed.

Hab. Perak.

The colour of the antennæ, that of the thorax, and the finely rugose elytra separate this species from any of its congeners.

PAPERS ON THE INSECT FAUNA OF CHINA

CONTAINED IN

'The Entomologist,' vol. xxiii. (1890).

New Species of Lepidoptera from China. By J. H. Leech, B.A., F.Z.S., &c. Pp. 26—50, 81—83, 109—114, 187—192.

Descriptions of new Species of Phytophagous Coleoptera received by Mr. J. H. Leech from Chang-yang, China. By Martin Jacoby, F.E.S. (with two plain plates) * Pp. 84—89, 114—118, 161—167, 193—197, 214—217.

Descriptions of Chinese Species of the Homopterous Family Cicadidæ. By W. L. Distant. Pp. 90, 91.

Descriptions of some new Species of Chinese Rhynchota. By W. L. Distant. Pp. 159, 160.

Coleoptera collected by Mr. Pratt on the Upper Yang-tsze, and on the Borders of Tibet. By H. W. Bates, F.R.S., F.L.S. Pp. 209—213, 244—247.

Descriptions of two new Species of Phytophagous Coleoptera from the East. By Martin Jacoby, F.E.S. Pp. 253, 254.

* Copies coloured by hand may be had.

91-'95.

upplement

SMITHSONIAN INSTITUTION LIBRARIES
3 9088 00908 1175